



EU Funded Project "Technical Assistance to the Skills for
Employment and Social Inclusion Programme"

المشروع الاوروبي " الدعم الفني لبرنامج المهارات للتشغيل والاندماج
الاجتماعي"



Component 3: Quality Assurance and Qualifications

Amman, Jordan

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the project is implemented by

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Towards a Common Approach for a Credit System underpinning the National Qualifications Framework in Jordan

**Assist in the development of an operationalisation plan of the established Jordanian
National Qualification Framework in relation to TVET qualifications and in
relationship with the Social Partners, as well as conduct a diagnostic analysis to review
the Education sector pathways to improve the attractiveness of the E-TVET sector**

Component 3: Quality Assurance and Qualifications

by

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Introduction

This document outlines a first attempt at understanding and agreeing the basic terms required Towards developing a Common Approach for a Credit System underpinning the National Qualifications Framework in Jordan (NQFJ).

It discusses the concept of a credit system and how it would be linked to the NQFJ and draws on experience in other systems that follow the concept of an integrated qualifications and credit framework.

This document was developed for supporting the discussion on a learning credit system within the NQFJ in the endeavour to align the education and training sectors on this matter. The main underlying issue of the discussion is the dichotomy between the *student centric* (outcome based) and *contact hours based* (teaching and training input) concepts.

Purpose and Benefits of Credits

Credits have an increasingly important role in defining and recording learner achievement. Credits also can be used for providing support for learners and their progression both into and within the given education systems. It is a key tool to facilitate lifelong learning, recognition and mobility, including RPL.

A credit represents the volume of a qualification, as outlined below, either in teaching time or in learning time. It can be associated with entire qualifications or parts thereof, such as units or courses / programmes.

Conceptual Approaches and Types of Credit Systems

Input based credit system

An input-based credit system is normally referring to the quantification of the **contact hours** in various types learning activities prescribed in a course or learning unit. These activities can be a direct teaching input such as lectures, seminars, tutorials, tutored laboratories etc. This is for example the traditional system used in higher education in the United States, which also prevails in many universities in the Arab region. It is often based on formula concept in which one 50-minute lecture, or two or three 50-minute laboratory or tutorial sessions over a 15-week teaching semester are regarded as one credit hour.

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In some other cases the system takes into account a fixed number of hours of student individual work to each contact hour (e.g. preparation for exams, preparation for labs, homework, literature search, etc.). This addition is a mere linear increment of learning time (e.g. for every contact hour, the system adds 3 hours of learners' learning hours). This does not make the system student centred. Namely, the addition is based on the assumption that every activity takes the same amount of work, regardless of the course, discipline, type of learning activity, etc. Thus, it can be still considered an input-based system.

In practice the credit attribution for input-based approach is relatively trivial. An agreed formula is used to convert the input hours (contact hours) declared in the course or unit description into credits. E.g. 15 learning hours equals 1 credit hour.

Learner-Centric Credit System

Instead of teaching staff input, the learner-centric system focuses on the burden of a typical learner for achieving the envisaged learning outcomes. This system was developed with a view of harmonising the quantifications based on learners' workload – a category that is expected to vary less from country to country. Thus, this concept relies on the assumption that learners' time (workload) is universal, regardless the differences in education systems, programmes, university traditions, qualifications etc. Measuring how many hours it takes to achieve any learning outcome or set of learning outcomes should be easier to compare.

A learner-centric credit system is in line with a larger conceptual approach to education. It is based on the argument that learning and teaching should take into consideration the specifics of learners and allow the development of specific talents of individuals. The learner-centric approach is also mentioned in many modern education strategies as part of a wider learner-centred approach to education.

In practice, the credit attribution for the learner-centric systems requires a structured procedure of initially assessing and continuously reviewing the time needed for a typical learner to complete the required obligations of a course or unit and thereby prove the achievement of envisaged learning outcomes. In the case of a new qualification, a group of subject and pedagogical experts (normally including those that designed the course or unit) would reach a



consensus about the time that a typical learner¹ would need for successful completion of the requirements of that course or unit. This process should be done separately for each course or other unit (component) of a qualification. When a qualification is already operational and learners have been enrolled, the quality assurance process should include the continuous review of the attributed learning credits to correct potential initial mis-judgements. In some systems, the learners themselves are involved in the review of the accuracy of measured learners' workload.

United Arab Emirates (UAE)

Type of system: Mainly input based system, used for transfer and accumulation.

Definition:

A credit value is the numerical value related to the notional hours accorded to a credit. Typically, the value relates to a notional quantum of hours per credit.

Credit matrix means the table indicating the total credit value assigned to a qualification (as outlined in the matrix at each level).

Equation

1 credit value = a notional value of 15 hours (with additional study hours)

Nominal duration

The notional minimum annual total is based on a nominal programme/course of 30 hours (notional attendance time) at 7.5 hours per day for 4 days or 6 hours per day for 5 days of which 8 hours covers the formally structured skills development component.

Sectors:

In relation to the of Emirates, the Indicative Qualifications Credit Matrix, defined for convenience in a credit matrix applies to qualifications used in the Higher Education (HE) and Vocational Education and Training (VET) sectors. It does not apply to the General (compulsory) Education sector.

VET credits

¹ A typical learner is a representative learner of most of learners. So, it is not an exceptionally talented or a slower learner. In statistical terms this would be a median learner.



The notional minimum quantum of 1 credit = 15 hours. This is comprised notionally of 11 hours' formal instruction and this would amount to 4 hours formally structured skills development for knowledge and skills based unit standards. This would amount to a minimum annual nominal delivery total of 600 hours or their equivalent, with an additional expected study/experiential-load of 22 hours (i.e. tutorial, studies, skills practice, workplace exposure etc.).

Malaysia

Type of system: Outcome based, learner centric credit system

Definition:

Credit is the quantitative measure that represents the volume of learning or academic load to attain the set of learning outcomes. Academic load is a quantitative measure of all learning activities required to achieve a defined set of learning outcomes. These activities include lecture, tutorial, seminar, practical, self-study, retrieval of information, research, fieldwork, as well as preparing for and sitting of an examination.

Equation:

1 credit = 40 hours of notional learning time

Purpose:

Developed for accumulation and transfer purposes: Enhancement of higher education provider's autonomy to design and plan teaching and learning activities. These are not bound to the teaching hours or teaching and training staff input. The credit system supports the comparability between varieties in national educational systems.

Sectors:

The credit system is developed for universities, colleges, polytechnics and community colleges, part time and full-time study, public and private sectors, e-learning and non-formal learning.

Further reading:

Malaysian qualifications framework: <http://www.mqa.gov.my/portalMQA/default/en/mqf.cfm>



South Africa

Type of system: Outcome based, learner centric, for accumulation and transfer purposes, including RPL.

Definition:

Credit within the context of the NQF is a measure of the volume of learning required for a qualification or part-qualification, quantified as the number of notional learning hours required for achieving the learning outcomes specified for the qualification or part-qualification at a specific level of the NQF as described in the level descriptors. "Notional hours of learning" comprises the total amount of time it would take an average learner to meet the outcomes defined in a learning experience and include, inter alia, face-to face contact time, time spent in structured learning in the workplace, time for completing assignments and research, and time spent in assessment processes.

Equation:

1 credit = 10 notional hours of learning.

Nominal duration:

The minimum credits for a full Qualification is 120 credits, which translates to 1200 notional hours of instruction and study. It is generally completed over 1-year full time study at a registered and accredited Institution.

Sectors:

The credit accumulation and transfer system applies to the whole range of qualifications registered on the NQF and managed by the NQF authority (SAQA). This includes formal qualifications in higher education, general and further education and occupational qualifications.

Further reading

- SAQA Policy for Credit Accumulation and Transfer within the National Qualifications Framework <http://www.saqqa.org.za/docs/pol/2014/Polic%20for%20credit.pdf>
- SAQA website <http://www.saqqa.org.za/index.php>

Bahrain

Type of system: Learner centric system measuring notional learning hours. However, it is not clear from the available documents whether the actual learning time is estimated for each unit and qualification separately, or just assumed based on contact hours.



Definition:

NQF credit is based on the notional learning hours required for a typical learner, at a specified level, to achieve a set of learning outcomes. Individual units of a qualification should be allocated notional learning hours, considering all types of learning activities that contribute to the achievement of learning outcomes.

Equation:

1 NQF credit = 10 notional learning hours. Conversion into European and US credit systems:
1 ECTS = 2 NQF credits, 1 USA credit = 4 NQF credits. The NQF does not allow the use of fractions in the calculated credits - fraction credit hours are rounded to the nearest whole credit.

Nominal duration:

The NQF considers a standard academic year to involve 1,200 notional learning hours or 120 Credits, a ratio of 10:1.

Purpose:

Credit value can be useful for comparing the depth or volume of learning, aiding the design of units and qualifications, providing a framework for learning access, transfer and progression, and supporting the development of consistent learner workloads across qualifications within different disciplines and/or within different learning environments.

Sectors:

One organisation (QQA) is mandated for all sectors: higher education, vocational education and training and schools. It is, however, not clear if the credit system is already in place in all three sectors.

Further reading:

The National Qualifications Framework of Bahrain:

<http://www.bqa.gov.bh/En/QaaetUnits/NQFU/Pages/NQF.aspx>

Denmark and (Continental) Europe

Credit system in Higher Education and Vocational Education and Training

Higher education:

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Type of system:

ECTS – is a student-centred system that focuses on students' workload necessary to achieve the prescribed learning outcomes. It is a standardised system across Europe, including Denmark.

Definition:

ECTS is a credit accumulation and transfer system, based on learning achievements and student workload.

Equation:

1 ECTS credit = (corresponds) to 25 to 30 hours of work. It should be recognised that this represents the typical workload and that for individual students the actual time to achieve the learning outcomes will vary.

1 full time academic year = 60 ECTS. In other words, 60 ECTS credits are allocated to the learning outcomes and associated workload of a full-time academic year or its equivalent. In most cases, workload ranges from 1500 to 1800 hours for an academic year. 60 credits are used, as this is most easily divisible in systems that use semester, trimester or quatrimester.

Nominal Duration:

Higher education programs in terms of student workload expressed in ECTS credits:

Bachelor: Typically include 180 - 240 ECTS credits

Master: Typically include 90-120 ECTS credits, with a minimum of 60 credits at the level of the 2nd cycle

Doctorate: Not specified

Purpose:

ECTS is a credit system designed to make it easier for students to move between different countries and higher education institutions. Describing the degrees and units in terms of learning outcomes and student workload makes them more readable, transparent and comparable.

Besides the 28 EU members, the ECTS is used also in other countries of Europe and beyond. In total, it is implemented or in process of implementation in 48 countries.



Vocational education and training:

Definition:

ECVET – marks the relative importance of the units of learning outcomes for qualification. It was designed to fit the nature and characteristics of VET, taking in consideration a variety of learning activities (including practical experience, internships, work-based learning, etc.).

Equation:

60 ECVET points are allocated to the learning outcomes expected to be achieved in 1 year of formal full time VET. 60 points are used, as this is most easily divisible in systems that use semester, trimester or quatrimester.

Method:

ECVET points are first allocated to the qualification as a whole and then to single units. To decide on the number of ECVET points allocated to a qualification, one formal learning program is chosen as a point of reference. On the basis of 60 points per year of formal full time VET, the total number of points is assigned to that qualification. It is up to the competent institutions in charge of designing qualifications to decide which specific program will be chosen as a point of reference. From this total, ECVET points are then allocated to each unit according to its relative importance within the qualification.

Purpose:

It is used in vocational education and training and non-formal learning. Assessed learning outcomes constitute credit. Credit is the basis for enabling the transfer between learning contexts and for the accumulation of learning outcomes. ECVET points are a numerical representation of the overall weight of learning outcomes in a qualification and of the relative weight of units in relation to the qualification. ECVET is based on the division of qualifications into units and on the description of these units in terms of expected learning outcomes (in form of knowledge, skills and competences).

The adoption and implementation of ECVET in the participating countries is voluntary. The adoption of the Recommendation by the EU institutions in 2009 catalysed the introduction of ECVET into the system of EU member states, this is 28 countries.

ECTS and ECVET in Denmark

According to the national reports, all Danish Universities and other higher education institutions implemented and actively use the ECTS system. Unlike ECTS, the ECVET

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implementation in Denmark is still in an early phase. The Danish Educational Trade Committees supported by the Ministry of Education are in the process of categorising and grading the learning outcomes into the NQF template. Most likely the ECVET implementation will speed up when all the VET professions have finalised the NQF categorisation. Danish ECVET experiences have been achieved via participation in some of the EU ECVET pilot projects, especially in the field of cross-border internships and working practice.

Conversion between ECTS and ECVET

Converting ECVET into ECTS and vice versa can be carried out through a matrix of learning activities and learning outcomes and a four-step procedure:

1. Depict the qualification by filling in the grid with the single learning outcomes corresponding to the job profile and then grouping them into units.
2. Depict the qualification by filling in the grid with the associated learning activities.
3. Cross which learning activities contribute to which learning outcomes in order to identify the overlapping of the training pathway and of the outputs of the qualifications expressed in learning outcomes.
4. Allocate the ECVET points to the units of learning outcomes respecting the ECVET specifications or allocate ECTS credit points to the learning activities, considering the workload or (in some cases) allocate both types of credits.

Further reading:

ECVET website: <http://www.ecvet-secretariat.eu/en/what-is-ecvet>

ECVET implementation in Malta (for further reference, including a conversion manual for qualifications into ECVET): <https://ncfhe.gov.mt/en/Pages/Projects/ecvet.aspx>

<http://www.ecvet-projects.eu/Documents/ECVET%20Conversion%20manual.pdf>

ECTS Users' Guide: https://ec.europa.eu/education/resources-and-tools/document-library/ects-users-guide_en



Summary of the Comparison

Country	Type of system	Formula	Sector
United Arab Emirates	Mainly input based ² . A credit value is the numerical value relating to the notional hours accorded to a credit. Typically, the value relates to a notional quantum of hours per credit.	1 credit value = a notional value of 15 hours (with additional study hours)	The Indicative Qualifications Credit Matrix, defined for convenience in a credit matrix applies to qualifications used in the Higher Education (HE) and Vocational Education and Training (VET) sectors
Malaysia	Learner centric, measuring the volume of learning or academic load to attain the set of learning outcomes	1 credit = 40 hours of notional learning time	The credit system is developed for universities, colleges, polytechnics and community colleges, part time and full time study, public and private sectors, e-learning and non-formal learning
South Africa	Learner centric, measuring the volume of learning required for a qualification or part-qualification, quantified as the number of notional learning hours required for achieving the learning outcomes	1 credit = 10 notional hours of learning.	The credit accumulation and transfer system applies to the whole range of qualifications registered on the NQF and managed by the NQF authority (SAQA), Including higher education, general and further education and occupational qualifications
Bahrain	Learner centric ³ , notional learning hours - all types of learning activities that contribute to the	1 credit = 10 notional learning hours	One organisation (QQA) is mandated for all sectors: higher education, vocational education and training and schools. It is

² The methods of attributing learning credits are not clear from the published documents

³ The methods of attributing learning credits are not clear from the published documents



	achievement of learning outcomes		however not clear if the credit system is already in place in all three sectors.
Denmark	Learner centric, standardised with the recommendations of the European Higher Education Area into ECTS system - measuring student workload	1 ECTS credit = (corresponds) to 25 to 30 hours of work	Higher education adopted the ECTS system VET is experimentally implementing ECVET (60 ECVET points are allocated to the learning outcomes expected to be achieved in 1 year of formal full time VET)

Recommendations

The NQFJ learning credit system should be based on learning outcomes and on student-centric approach to education and training in alignment with a modern and learner-oriented approach to education and training. The following procedure for attributing learning credit is recommended:

Assessing the learning time for each unit

In the case of a new qualification, a group of subject and pedagogical experts (normally including those that designed the course or unit) would reach a consensus on the estimated time that a typical learner⁴ would need for successful completion of the requirements of that course or other unit. This should be referred to as **learning time**. The process of estimating the learning time should be done separately for each course or other unit (component) of qualification. The table below is devised to support the calculation of learning time for each course or unit.

Overall learning time and adjustments

The sum of learning time for all units is a step towards determining the total of learning hours for the qualification or the total learning time. If the sum of learning time exceeds the desired

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total learning time, the adjustments of the curriculum will be needed until the right balance of learning hours is reached.

Converting learning time into learning credit points

The ratio between learning hours and credit point needs to be decided. For example, if the ratio would be 10 to 1, then 10 hours of notional learning time would correspond to 1 learning credit.

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Learning Activity	Description (if required)	Typical time (learning hours)
Induction activities		
Formal taught (credit) hours		
Tutorials		
Other contact activities		
Workshops		
Laboratory work		
Individual project works		
Expected research		
Preparing presentations		
Independent study/ reflection		
Online data/literature search		
Library/archives literature search		
Workplace learning		
Practical activities		
Placements		
Assessment		
Other		
Total learning hours		
Learning Credit (Total learning hours / X)		

Issues arising:

Conclusion

In line with international developments, the NQFJ should be a learner-centred system. It should describe learning from a learner perspective, not from a teaching one. The focus should be on

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outcomes and not on input. The knowledge, skills and competence portrayed in the NQFJ level descriptors should inform the development of learning outcomes to be achieved by a learner.

All qualifications require a time commitment to achieve them. This is a measure useful for public understanding of a qualification, and supports processes of qualification comparison and recognition internationally. The NQFJ qualification standards and criteria should include a requirement to provide a measure of this time, which is sometimes referred to as "credit-rating process". This should be learner-centred also - achievement of learning outcomes requires a time commitment from the learner.

The achievement of most qualifications is incremental – consisting of the achievement of individual **components** (such as subjects, units or courses/programmes), each of which require a time commitment. Taken from the **perspective of a learner**, the time commitment is how long it **typically** takes to achieve all of the components of a qualification including assessment. As a base measure of this time commitment, the concept of learning hours is used.

Credits could also be used as the basis to define progression pathways. For example, entry into a qualification at a specific level of the NQFJ could be made dependent on a learner having completed a qualification at the preceding level with a minimum number of credits defined (as volume of learning). Credits could also in the future form the basis for a common approach to RPL. Reference to credit level and credit volume could be made for deciding how much and at what level prior learning would be recognised.