



RESEARCH ARTICLE

The Role of the National Qualifications Framework in the Jordan Education System

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Abstract

Jordan is part of the structuring of the international Qualification Framework. The Jordan qualification framework, JNQF, is a national strategy for managing and regulating all national qualifications in the education and training sectors in a single comprehensive qualification framework. The JNQF consists of 10 levels for both academic and vocational pathways. The descriptors of JNQF which are designed in terms of learning outcomes, help to map the vertical level of complexity of a particular qualification and help to clarify its horizontal orientation, be this knowledge, skills, or competences. The main advantages of JNQF are: enhancing the image of vocational education and training (VET), bridging the academic and vocational pathways, facilitating lifelong learning, shifting the paradigm from input-oriented learning/training into leaning outcomes-based, recognizing individual learning pathways and opening up the possibilities to bring closer education/training providers in the labor market.

Keyword: JNQF, qualifications, NQF descriptors, Jordan

Introduction

In order to increase the confidence of Jordanian graduates in their educational and training system, it is important to ensure that the educational and training system achieves the same level of learning outcomes regardless of the institution that provide the qualification. These learning outcomes should necessary meet the needs of the labor market at the national level. The reforming of education and training systems needs a common understanding of all national qualifications to be a pivotal element. It also needs a criterion for comparing these qualifications with international qualifications by defining them at a given level in a reference framework.

Accordingly, there is a need to establish the so-called Jordan National Qualification Framework (JNQF) which is a major reference for all educational providers (formal, informal, non-formal), training providers, vocational and technical education providers, quality assurance institutions, employers, employees, and students as well as for all other stakeholders. The Accreditation and Quality Assurance Commission for Higher Education Institutions, AQACHEI, launched the JNQF in Dec 2019, with intensive involvement of stakeholders and experts that began in early 2017, on ways to create a more coherent and integrated qualifications system. The JNQF was issued pursuant to paragraph C of article 7 of the AQACHEI Law no. 20 of the year 2007 [AQACHEI 2007].

The JNQF consists of five parts: In the first part of the bylaw of the JNQF, the basic terms and concepts related to the JNQF system are defined, while the second part is dedicated to the tasks attributed to the AQACHEI Board in relation to the design and implementation of the JNQF. The board is given the authority to implement and manage the NQF and related procedures. NQF is also designed to incentivize the shift towards outcome-based education. In the third part, the bylaw presents the ten levels with differentiated learning descriptors that represent educational stages, types of degrees and levels of experience. These prescriptions consist of three main components: knowledge, skills, and competencies. The degrees and certificates are then classified according to the compatibility of the learning outcomes for each degree or certificate with the descriptors of the level to be accommodated. The fourth and fifth parts address the operational modalities and list the provisions that the AQACHEI board should develop respectively [JNQF 2019].

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In the last ten years, some qualification frameworks in the region's level are adopting the first, second and third-generation NQFs as benchmarking qualifications, along with several other regions. This is in order to examine ways to develop and enhance both country and regional frameworks, for example, the Southern African Development Community, SADC [Coleen Jaftha 2017], Caribbean Community CARICOM

[CARICOM 2007], central Asia [ASEAN 2015], Asia-Pacific [Manuel 2007, UNESCO 2021], the EU [EQF 2022, [Viktoriya Bilytska 2020](#)] and the Arab region [ANQAHE 2022].

The Arab countries, started developing an Arab Qualification Framework, AQF, within ANQAHE model in 2012 [Sindi 2012]. In particular, the Gulf Cooperation Council, GCC, countries (UAE, Bahrain, Kuwait, Oman, Saudi Arabia and Qatar) worked on the development of a meta-qualifications framework for the Gulf region (GQF) aiming to enable mobility of learners, encourage lifelong learning, and promote transparency between education and training systems in the GCC countries [GCC QF 2012]. Lebanon, Moroccan, Egyptian and Palestine, also developed an 8-level NQF, while Tunisian NQF consists of a 7-level NQF [Coleen Jaftha 2017, Manuel 2007].

The Current Status of Qualifications In Jordan

In general, the current education and training in Jordan contains three pathways: firstly, academic pathway after secondary comprehensive school, as shown in Table 1, which is offered by the Ministry of Education (schools) and universities through the awarding of traditional qualification types, ranging from certificates to degrees (bachelors, high diploma, masters, and PhD). This pathway focuses on providing students with high levels of knowledge and skills and competencies in fields that are not directly related to professional occupations. Secondly, technical pathway after

secondary comprehensive school, as shown in Table 1, which is offered by technical/ technology universities, technical university colleges and intermediate universities colleges through the awarding of technical/technological and intermediate diplomas degrees. The intermediate diploma degree is issued by the private and public community colleges affiliated to Al-Balqa Applied University, which ends with a comprehensive examination. This path frequently requires a workplace learning as an integrated part of the qualification such as work integrated learning, on job training or dual studies. Thirdly, vocational pathway. Technical and vocational education and training (TVET) is mainly delivered in the initial vocational education system (IVET). The large majority of training provision is public and consists of secondary vocational education of two years' duration in comprehensive upper secondary schools which is affiliated to the ministry of education (MoE) and vocational training (targeting 16–18-year-olds) by the Vocational Training Corporation (VTC), a semi-autonomous agency under the Ministry of Labor (MoL). This pathway has a more practical orientation to provide students with the high levels of knowledge, skill and competencies required for professional occupations. In general, the Jordanian education institutions are classified into education/training providers that offer all kinds and types of education and training; awarding bodies responsible for issuing the qualification degree/certificate at each level; quality assurance bodies responsible for the quality assurance of educational and training.

Table 1: Education (Academic and Technical/Technology) Pathways in Jordan.

Qualification	Volume	Duration	Certificate/Degree
Kindergarten	Kindergarten	2 years	Certificate
Basic education	School	1-10 years	Certificate
Secondary education	School	10-18 years	Certificate
Intermediate diploma. (Technical Path)	72 credit hours in two-year or 96 credit hours- in three-year. Min. 30% of discipline is practical training	2-3 years	Degree
Bachelor's degree (Academic or Technical/Technology Paths)	At least 132 credit hours. Max. 40% of discipline is practical training for Technical/Technology Path	4-6 years 6 years for human medicine 5 years for pharmacy, Dentistry, engineering 4 years for others	Degree
Higher Diploma (Academic path)	24 credit hours	1-2 years of study	Degree
Masters (Academic Path)	33 credit hours with comprehensive exam or Master dissertation	At least 2 years	Degree
PhD (Academic Path)	54 credit hours including a Doctoral dissertation	At least 3 years	Degree

Strengths and Weaknesses of JNQF

One of the most important problems of education in Jordan is the high demand for academic education and the reluctance to join technical and vocational education for several reasons. The most important reasons is the lack of appreciation of vocational qualifications by members of the Jordanian society because there is no mechanism to equalize the vocational qualifications with academic qualifications, in addition to the lack of mechanisms for the permeability between academic education and vocational education. In addition, the current education system does not allow the recognition of informal and non-formal qualifications resulting from training and practical experience that may be equivalent to a certain level of traditional education, which, if recognized and integrated into JNQF, can contribute to lifelong learning and provision of new career paths for its employees. These qualifications are sometimes awarded after the training that leads to the certification. [Al-Zoubi 2019, ASEM 2013].

The strengths of the JNQF in Jordan that is classified into an internal system are as follows:

- a. Adoption by the Jordanian government.
- b. Existence of legislative cover.
- c. Mandatory.
- d. Assigning the responsibility for implementing the JNQF to AQACHEI.
- e. The conviction of the main relevant sectors (higher education, general education, and vocational and technical education and training) of the importance of the JNQF.

The obstacles of the application of JNQF in Jordan. There are, however, considerable weaknesses as follows

- a. Insufficient trained staff capable of implementing JNQF.
- b. Lack of recruiting qualified employees.
- c. The majority of educational and training programs are designed without clear and deliberate learning outcomes.
- d. The gap between education and training outcomes and the needs of the labor market.
- e. JNQF is still unknown to the public majority.

Opportunity is a required change to apply JNQF in Jordan

- a. Review of Legislation.
- b. Government support.
- c. Political support.
- d. International organizations support.

Impediments that may occur when JNQF is established in Jordan are as follows:

- a. Lack of funding.
- b. Overlapping functions of quality assurance bodies.
- c. Qualifications fraud.
- d. Absolute financial independency.
- e. Lack of linking non-formal and informal to formal education.
- f. Lack of co-operation between the education sector and the labor market.
- g. Lack of existing standardized rankings or equivalences between different qualifications issued in different sectors.
- h. Lack of existing credit transfer and RPL guidelines.

Elements of JNQF

The JNQF is an instrument for the classification of qualifications according to a set of criteria for specific levels of learning outcomes, not the learning input. The learning outcome descriptors, which are understood differently from one country to the next, are therefore intended to show the progression in the education and training systems. In Jordan, these descriptors operate as reference points for the application of learning outcomes in academic, vocational and training qualification standards, curricula and assessment specifications. This is expressed by the use of verbs that describe an increasing degree or complexity of knowledge and understanding, level of skills and competence. The fundamental elements of JNQF relate to: levels descriptors; Qualifications; Access, transfer and progression; Certification and authentication; and quality assurance.

Level Descriptors

The aim of the level descriptors is to describe the knowledge, skills and general competence that all candidates who have completed an education/training at the level that are expected to have achieved. The JNQF regardless of the volume of learning or training (years or hours) has 10- Level as show in Table 2 and Table 3. These levels indicate different degrees of complexity of the learning outcomes. The lowest levels (for academic, vocational and training) define the basic knowledge, skills and competencies, while the highest levels (for academic, vocational and training) emphasize the capacity to analyze and innovate processes, create new knowledge and may include the ability to lead and manage people and processes.

Qualification

The JNQF Bylaw [JNQF 2019] defined academic qualification and vocational qualification in terms of learning outcomes. Academic qualifications are the qualifications including theoretical learning outcomes that are focused on acquiring knowledge and can be refined through training after graduation in addition to specific applied skills and self-learning skills. On the other hand, vocational qualifications are those that rely on applied outcomes concentrating on acquiring competence and applied skills in different vocational fields that include applied learning outcomes in addition to specific theoretical knowledge and self-learning skills. These qualifications are divided into four classes; main, sub, complementary or special. Firstly, the main qualifications are granted by the institutions of school education, vocational education and higher education approved by their academic and vocational pathways, which achieve an approved set of learning outcomes associated with the level descriptors. Secondly, the sub qualifications are granted by the institutions of school education, vocational education and higher education, both academic and vocational, which achieve a part of the set of learning outcomes approved for the main qualifications within the level of those qualifications. Thirdly, the complementary qualifications are granted by institutions of school education, vocational education and higher education accredited by the academic and vocational institutions, private training institutions and foreign institutions that provide technical and academic certificates, which achieve a set of additional learning outputs provided by the main qualifications within the level of those qualifications. Finally, the special qualifications are granted by the institutions of school education, vocational education and higher education of the academic and vocational types, private training institutions and foreign institutions for certificates that achieve a set of specialized outputs and have special learning objectives within the level of those qualifications.

Table 2: Qualifications level of JNQF

Level	Qualifications within a Level
10	PhD degree, and the equivalent qualifications obtained by experience.
9	Master degree, specialised training courses with an equivalent level of the master's degrees, different medical specialisations and the equivalent qualifications obtained by experience.
8	Higher diploma degree, specialised training courses equivalent to the level of higher diploma degree, and equivalent qualifications obtained by experience.
7	Bachelor's degree, and equivalent qualifications obtained by experience.
6	Intermediate university diploma degree, specialised training courses equivalent to diploma courses, and equivalent qualifications obtained by experience.
5	Technical or training diploma certificates (without the comprehensive exam) and the equivalent qualifications obtained by experience.
4	Secondary academic and vocational certificate (Tawjehee), vocational diplomas and the equivalent qualifications obtained by experience in vocational sector.
3	Certificate of the basic level (Basic 10), the vocational training professional certificate level TVET2, and the equivalent qualifications obtained by experience in vocational sector.
2	Certificate of the basic level (Basic 6), the vocational training professional certificate level TVET1, and the equivalent qualifications obtained by experience in vocational sector.
1	Kindergarten (KG) certificate, qualifications for unskilled individuals.

Table 3. Levels descriptors of the JNQF

Level	Knowledge	Skills	Competences
10	<ul style="list-style-type: none"> Create new knowledge on the latest scientific knowledge in the field of study and the boundaries between areas through qualitative convincing scientific research for peer review. 	<ul style="list-style-type: none"> Demonstrate the ability to conceptualize, design, implement and master the skills and methods of scientific research with full knowledge of the concepts of scientific integrity. Critical analysis, evaluation and compilation of new and complex ideas; Solve critical problems in research and / or innovation, expand and redefine existing procedural knowledge or practice. 	<ul style="list-style-type: none"> Ability to demonstrate a great knowledge authority, Ability to innovate, and to be independent Continued commitment to develop new ideas or processes on the limits of the latest scientific findings in the field of study, including scientific research, dissemination of research results to their peers, Criticise the implementation of knowledge in a particular context Ability to understand social values and demonstrate leadership abilities to change those values.
9	<ul style="list-style-type: none"> Specialized knowledge on the latest scientific findings in the field of study The ability to think critically about knowledge issues in the field of learning and on the interface between different fields. Adequate knowledge of innovation strategies 	<ul style="list-style-type: none"> Demonstrate the ability to apply specialized skills in solving the required problems in scientific research Ability to innovate new skills, tools and procedures at a high level including new and emerging technological skills Ability to integrate knowledge from different learning areas. 	<ul style="list-style-type: none"> Addressing, managing and initiating the complexity of scientific issues. Drafting of provisions; conversion of good practices; Managing ambiguous study contexts that require a new strategic approach; Self-assessment and taking the responsibility for self-learning Take responsibility for the work of the team Contribute to vocational knowledge Ability to review team performance.
8	<ul style="list-style-type: none"> Specialized and advanced knowledge in the field of specialized work or field of learning and on the interface between the areas of learning A comprehensive understanding of the methods of creating knowledge or scientific concepts using a range of diverse sources Comprehensive knowledge in scientific research and current 	<ul style="list-style-type: none"> Problem solving skills in the field of specialization and demonstrate the ability to integrate knowledge from different areas of work or learning areas to solve complex problems or abstract and unknown solutions independently Critical selection of research tools and strategies related to the field of work or learning Identify appropriate sources For information or analytical means in investigations leading to conclusions and solutions to 	<ul style="list-style-type: none"> Take responsibility for designing and developing innovative methods for managing and evaluating complex business, processes, resources, or learning, including leadership and management of teams within vocational or technical activities and working effectively as an individual Take responsibility for the leadership and strategic performance of the vocational teams and for the self and to manage and support the process of directing the vocational development of others The ability to express global perspectives, accept responsibility towards society, community values, and social

	<p>innovations in the field of work or field of study or professional practice, and its impact on theory and practice</p>	<p>problems</p> <ul style="list-style-type: none"> • Technology, communication and advanced information skills to explain and / or criticize technically complex issues 	<p>relationships</p> <ul style="list-style-type: none"> • Manage vocational activities that may be in a complex environment • Formulate peer relationships with qualified practitioners • Ability to self-assess and take responsibility for professional practice in complex and sometimes unfamiliar learning contexts • Leadership and contribution to the implementation of ethical standards
7	<ul style="list-style-type: none"> • A systematic understanding of the theories, concepts, principles and circulations related to the field of learning, some of which are within the limits of the latest scientific findings. 	<ul style="list-style-type: none"> • Mastering the skills and tools required to solve complex problems in a specialized field of study • Demonstrate specialized and conceptual skills in the field of study • Practice evaluation in planning, design, technical and / or supervisory functions related to products, services or processes 	<ul style="list-style-type: none"> • Management of activities and projects • Take responsibility for decision-making in work or study contexts • Take responsibility for group work and work effectively with peer guidance • Transfer and apply diagnostic and creative skills in a range of contexts
6	<ul style="list-style-type: none"> • Specialized knowledge in a wide field. • Knowledge of some theoretical concepts and abstract thinking in the field of study 	<ul style="list-style-type: none"> • Demonstrate a comprehensive set of skills and specialized tools. • Identify solutions and responses to well-defined, familiar and diverse problems. • Access and use of the information for planning and strategies development. 	<ul style="list-style-type: none"> • Work in a variety of diverse and specific contexts involving creative and non-routine activities; , transfer , apply theoretical concepts and / or technical or creative skills to a range of contexts. • Exercise great personal autonomy and often assume responsibility for the private work , work of others and / or for allocating resources; form, function within multiple complex and heterogeneous groups.
5	<ul style="list-style-type: none"> • Realistic and supportive knowledge in broad contexts within the field of work or study • Knowledge of the principles and processes of how knowledge obtained in a particular area of work or study is applied • Knowledge of a range of issues related to a particular area of work or study (environmental, economic, cultural and social) 	<ul style="list-style-type: none"> • Knowledge skills required to apply operational methods and procedures. • Acquire a set of skills required to select appropriate tools and methods and apply them to problem solving. • Possess the skills required to organize activities within the group • Prepare summary reports on completed activities. • Use appropriate techniques associated with the field of specialization. 	<ul style="list-style-type: none"> • The practice of self-management within the guidelines for work or study contexts that are usually predictable, but subject to change • Supervise the routine work of others, train subordinates and raise their competence, and take responsibility for the implementation of the rules of security and safety • Taking responsibility for the management and development of subordinate performance • Take responsibility for self-learning in a disciplined environment and the ability to solve common problems.
4	<ul style="list-style-type: none"> • Knowledge with a wide and diverse scope • Deep knowledge that includes some theoretical abstraction 	<ul style="list-style-type: none"> • Practical and cognitive skills • Ability to choose a solution from a set of known solutions and apply them to solve known problems and find solutions 	<ul style="list-style-type: none"> • Work in known contexts and unknown results • Responsibility for supervised self-learning • Carry a part of responsibility for consistency of self-understanding and behaviour • Act with great independence and responsibility
3	<ul style="list-style-type: none"> • Basic knowledge with an intermediate field and adequate understanding of a particular subject • Linking knowledge with familiar and unfamiliar contexts 	<ul style="list-style-type: none"> • Use limited practical and knowledge skills using specific tools • Ability to choose a solution from a limited set of solutions and apply them to a limited set of well-known results 	<ul style="list-style-type: none"> • Act in limited contexts and known results • Ability to self-learn in a specific environment and under supervision • Limited responsibility for consistency of self-understanding and behavior • Act with limited autonomy under supervision and within consistent groups
2	<ul style="list-style-type: none"> • Basic knowledge of a narrow field within the levels of knowledge and simple understanding 	<ul style="list-style-type: none"> • Have simple and limited knowledge and practical skills • Ability to perform routine tasks with clear guidance 	<ul style="list-style-type: none"> • Act in limited contexts and known results • Acting in a range of roles and under supervision • Self-learning initiative in an organized

			and supervised learning environment
			• Begin to recognize the independence of personality
			• Ability to arrange educational tasks
1	• Basic knowledge acquired by remembering and recognizing for life	• Have simple practical skills and tools • Ability to perform known basic operations results by using repetition	• Act in specific and consistent contexts • Act in specific roles • Ability to access and use diverse sources of knowledge

Credit Hours

Credit hours are used, in JNQF, to describe the amount of learning expected for qualifications at each level. The length of programs (and the number of credit points given) may differ for programs with the same or similar titles. For example, a bachelor degree may be four or five or even six years in length depending on the amount of learning expected at the level of complexity expected for bachelor degree studies. The title is based on the level or complexity of learning rather than the time taken, though there are minimum credit requirements. One credit can be equivalent to ten notional learning hours. Notional learning hours include: direct contact time with teachers and trainers; time spent in studying, doing assignments, and undertaking practical tasks and assessment time.

Standards

The standards of JNQF include the standards of entry progress and transfer of qualifications; standards for recognition of prior learning, non-formal, and informal education; standards for listing of educational and training institutions; and standards for placement of national qualifications and alignment of international qualifications.

Recognition of Prior Learning, RPL

In many cases, students may have developed important skills and knowledge through informal education systems or in employment, or they could have taken further studies beyond the level of basic education in vocational education or other higher education institutions. In this case, students should not be required to duplicate the 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 JNQF, and be permitted to proceed to further studies in a flexible way.

Quality Assurance:

The responsibility of quality assurance is divided between two bodies: Accreditation and Quality Assurance of Higher Education Institutions, AQACHEI and Technical and Vocational Skills Development, TVSD [TVSD 2022]. The AQACHEI is responsible for developing four types of quality assurance related to the JNQF:

- a. Placing all the qualifications and certificates (whether national or international) of academic, technical and vocational in the JNQF: It is necessary to quality assure the placing of national qualifications and certificates at the proper levels in the JNQF and to align these qualifications to other international qualification.
- b. Listing all of academic, technical and vocational institutions.
- c. Assessment and learning outcomes from academic and technical pathways: The JNQF can be used as a tool to transform the existing quality assurance mechanisms for education in Jordan to improve the quality of teaching, examination and learning outcomes.
- d. Placing of RPL on the JNQF.

While the TVSD is also responsible for developing four types of quality assurance related to the JNQF:

- a. Quality assurance of assessment and learning outcomes (competence-based approach) from vocational pathways.
- b. Quality assurance of professional qualifications and certifications.
- c. Quality assurance of training courses and training providers (occupational standards, licensing conditions and accreditation of TVET providers, testing agencies, classify vocational trainers...etc.)
- d. Quality assurance of RPL.

JNQF Alignment to Other Qualification

The frameworks for each of the country have much in common that they are based on learning outcomes. JNQF levels and their alignment to the International Standard Classification of Education [ISCED 2022] and other international qualification is illustrated as shown in Table 4.

Table 4. JNQF levels and their alignment to other international qualification

Level	JNQF	Irish	Bologna Process	ISCED	UAE	Bahrain
10	PhD degree,	Doctoral degree Higher Doctorate	Third Cycle	-	PhD and equivalent qualifications	Doctoral Degrees
9	Master degree, specialisations and the equivalent qualifications obtained by experience.	Master degree Postgraduate diploma Professional Award	Second Cycle	-	Degree MA, Post graduate certificate/diploma	Master's Degrees, Postgraduate Diplomas
8	Higher diploma degree, and equivalent qualifications obtained by experience	Honours bachelor degree Higher diploma Professional Award	First cycle	Doctorate	Degree Bachelors/graduate certificate/diploma	Bachelor's Degrees
7	Bachelor's degree and equivalent qualifications obtained by experience	Ordinary bachelor degree Professional Award	First Cycle	Master	Diploma Higher Diploma and equivalent qualifications	Higher Diplomas
6	Intermediate university diploma degree, specialised training courses equivalent to diploma courses, and equivalent qualifications obtained by experience.	Advanced certificate	Short Cycle	Bachelor	Diploma Diploma/associate's degree and equivalent qualifications	Diplomas
5	Technical or training diploma certificates (without the comprehensive exam) and the equivalent qualifications obtained by experience.	Level 5 certificate	-	short-cycle tertiary	Diploma Enjaaz/associate diploma and equivalent qualifications	Advanced School Graduation Qualifications, Higher Certificates
4	Secondary academic and vocational certificate (Tawjehee), vocational diplomas and the equivalent qualifications obtained by experience in vocational sector.	Level 4 certificate	-	post secondary, non-tertiary	Certificate High school/vocational/adult education/advanced certification	School Graduation Qualifications, Certificate II
3	Certificate of the basic level (Basic 10), the vocational training professional certificate level TVET2, and the equivalent qualifications obtained by experience in vocational sector.	Level 3 certificate	-	upper secondary education	Certificate Vocational/adult education/intermediate certification	Intermediate, Certificate I
2	Certificate of the basic level (Basic 6), the vocational training professional certificate level TVET1, and the equivalent qualifications obtained by experience in vocational sector.	Level 2 certificate	-	lower secondary education	Certificate Vocational/adult education/foundation certification	Level 2 Access 2
1	Kindergarten (KG) certificate, qualifications for unskilled individuals.	Level 1 certificate	-	primary education	Certificate Access/key skills certification	Level 1 Access 1
0	-	-	-	Early childhood education	-	-

Conclusion

The key objectives of the JNQF is to reform national qualifications, promote level progression, as well as rule to recognize prior learning. The JNQF also reforms the fragmented TVET and supports vertical and horizontal progression in qualifications levels and adequately supports mobility between levels. The JNQF consists of 10 levels to link the general education, vocational education and higher education in accessible, easier and visible pathways. These ten levels are described according to three broad descriptors: knowledge, skill and competencies.

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