



Quality Assurance Model in Enhancing the Professional Development Content

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Abstract

The purpose of this research is to identify aspects of the quality assurance model to develop high-quality professional development content. The research reviewed relevant literature to collect major processes and procedures quality assurers used and followed to enhance the quality of the training content. In addition, the research referred to a current model that has been used by researchers in a UAE governmental organization. The results introduce a comprehensive model that includes the overall quality assurance cycle, interaction with other content experts, the characteristics of high-quality content, procedures quality assurers and involved professionals should follow. The research recommended applying the proposed procedures and actions to place professionals in a well-structured quality assurance model that considers training needs, instructional designers and learners' feedback, content experts and other involved professionals. This would ensure information and feedback is conveyed during content development and quality assurance process to address the requirements of the learners.

Keywords: Professional Development; Quality Assurance; Content; Training.

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1. Introduction

Professional development (PD) has become a vital need to upskill individuals in all specialization areas and to build their capacity to cope with the rapid changes in the new era of the learning revolution. Professional development programmes and experiences used in educational contexts assess the impact of teaching practice on student achievement and the feasibility of conducting professional development opportunities [9]. There is a strong emphasis on the pursuit of educational quality in ongoing education reforms in both local and international contexts [5]. Quality assurance is a key concept that plays a major role in modernizing and improving the education and training systems in general, which leads to improving all the components of these systems. This in turn, enables learners to achieve their goals, meet their needs, and contribute to the personal, professional and national development process. Despite the belief that quality is the responsibility of every individual, senior management strives to develop systems to oversee the performance of various departments and parties involved in the implementation of training and education programmes. Hence, the quality assurance of education and training content is considered one of the most important aspects of ensuring high-quality educational and professional development programmes [3].

1.1 Research Problem and Questions

The research problem is identified through the following questions that identify the key aspects of quality assurance models to develop high-quality PD content:

1. What are the key components of a Quality Assurance system to improve PD content in the education sector?
2. What are the characteristics of high-quality professional development content in the UAE?

1.2 What is Quality Assurance?

Quality Assurance- according to the Analytic Quality Glossary, is the collection of policies, procedures, systems and practices, both internal and external, that are used to realize, keep and enhance quality. In other words, it is the process of improvement. Staff roles play a part in the perception of quality assurance in education, and staff tends to believe that it is just extra work (busy work). Therefore, quality assurance is often viewed in a negative light, while quality enhancement is viewed positively. This view comes from the strict structure of quality assurance which includes measurements that must be adhered to. While quality enhancement can be subjective and is based on how learners and staff engage with the content. Quality assurance ensures that procedures are followed while enhancement ensures that there is continuous improvement [10].

1.3 Quality Assurance of the Professional Development Content

Quality assurance for training, in general, involves many factors like trainers, learners, supervisors, assessors, training needs analysis, and of course, the training content. In this article, we will discuss how to quality assure training content in professional development programmes. The need for improvement in the quality of training content has risen due to a need to provide skills through a well-defined process to be delivered as workshops and

training sessions [2]. Through the previous definition for quality assurance in education, we can conclude that the quality assurance of professional development content can be defined as procedures to measure conformity of a product or service for a set of pre-set standards to provide customized training content that meets the needs of learners. [6,17,12] confirms that training steps are five:

a) Training needs analysis (TNA)

This step is considered one of the most important components in supporting and designing training programs. Identifying needs links, the required skills to be obtained by individuals to the required objectives. Identifying the needs makes training activities purposeful. In other words, it reflects the needed change in attitude, knowledge requirements and specific areas of needed skills improvement.

b) Instructional Design

In this step, all required resources are identified, such as books, training aids, and videos. The training methods are also identified. Examples include lecture, case study, and role-plays.

c) Testing the Validation of the Training Program.

This step tests the validity of the training program by piloting it to examine and to check if there are any gaps.

d) Implementation of Training

Implementation includes many activities such as identifying training schedules, length of the session, breaks, location, learning environment, and equipment.

e) Follow up and Evaluation

Follow up is a process that can be done during the implementation and after implementation to ensure that facilitation is being applied as planned. The evaluation requires diagnosis and an action plan, which is determined by the trainer and learner feedback.

And according to [15] there are four training steps, as mentioned above, however, [15] adds an additional step. See the following Figure 1:

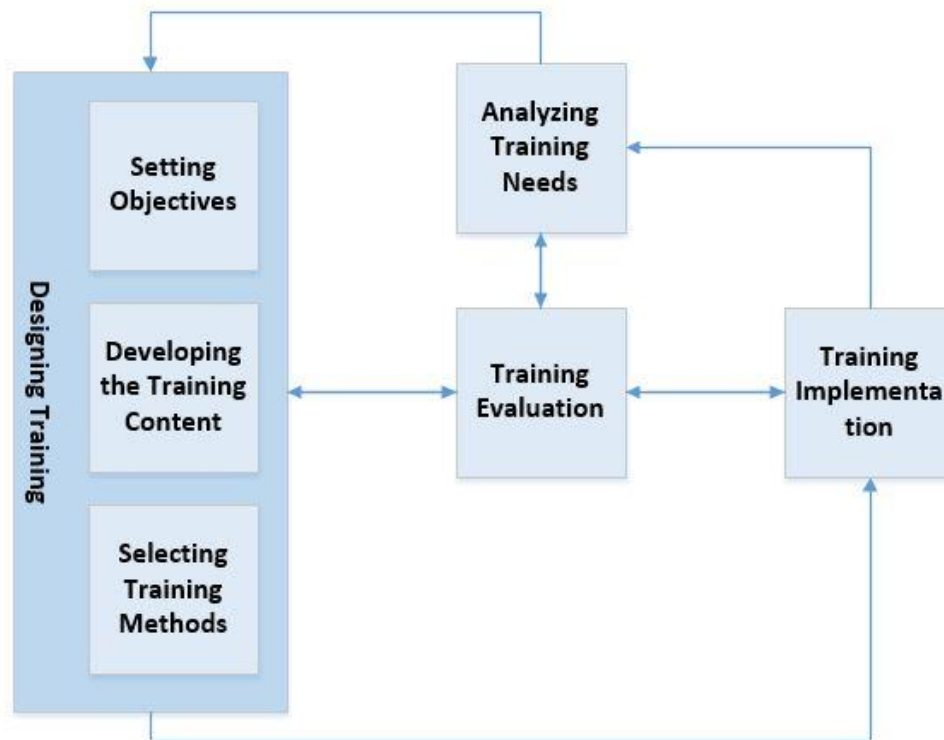


Figure 1: Training steps

Developing training content is a comprehensive process that begins with setting the aims, goals and objectives. The next steps include developing theoretical knowledge and designing activities, training techniques and assessments. Therefore, any process of enhancing the training content should be reflected in all of these components of content development. Birman and his colleagues [1] conducted a study titled “The Eisenhower Professional Development Program: Emerging Themes From Six Districts” emphasized that professional development programmes have six main features that make them high quality, two of these six features are: The subject matter training content should be thorough and deep, and the second is emphasizes that content should have many strategies and teaching approaches. These strategies should provide teachers with learning opportunities and practices that allow reflection upon their newly gained knowledge, expanding teachers’ roles, linking professional development to other educational initiatives and accountability for findings of training programmes. Based on this study, these features emphasize the quality of training content that will facilitate increasing the student’s achievements as students are the end-users. In the study [19], it was revealed a new model for high-quality professional development programmes for teachers. They highlighted the importance of utilizing several training strategies to build teachers’ capacity and provided a clear list of characteristics of professional development programmes as shown below in table 1.

Table 1: Characteristics of a new model for professional development

Inputs to the design process	<ul style="list-style-type: none"> • A new model of professional development
Strategies	<ul style="list-style-type: none"> • Building learners capacity in the subject matter knowledge • Providing onsite support for improving the practices
Knowledge and beliefs	<ul style="list-style-type: none"> • Constructing the PD agenda by all involved parties (PD developers and trainers). • Theories of Learning (Training techniques that focus on learning rather than teaching). • Relate knowledge with practice.
Context	<ul style="list-style-type: none"> • Particularities of context play a vital role in the PD. • Takes place in different locations: Onsite or in training rooms.
Critical issues	<ul style="list-style-type: none"> • Focus is on developing the instructional program and the community in addition to the teacher/learner

This leads to the importance of enhancing the content to enhance the overall outcome for the PD program. Taking care of the process of upgrading the level of the development will ensure that the implementors (Teachers, Trainers, Coaches and Educators) will get a high opportunity to address their learners' need and will leave less impact of their personal delivery method.

A study [3] titled "Contemporary Approaches to Teacher Professional Development", they listed the key characteristics for a high-quality PD educational content in her comparative literature review is as follows:

- PD content should be built based on a practical approach, where learners can apply what they have learned in training.
- PD content should involve teachers/ learners in tasks, observations and assignments.
- PD content should focus on pedagogical content knowledge.
- PD content should focus on learners' learning.
- PD content should focus on the benefits that the end-user will feel.
- Since teachers are learners in the professional development programmes, they should be involved in developing their assignments, assessments, feedback and reflection.
- PD content should provide learners with opportunities to make connections between their training and their practices at the field.
- High-quality PD content should provide learning activities for multiple contexts for practices and reflection activities for improving future learning experiences.

It is worth noting that this list of characteristics and actions required to improve the quality of the PD content will expand due to the growth of databases of research over time. Based on that, the quality of training content is an essential component of the quality of the entire training program. In [13], it was assessed the essential course content for wage earners and the self-employed in non-formal education and training (NFET) in South Africa. The results indicated that in all private centres and few public centres, skills training followed a sequential pattern. That pattern starts with learning needs assessment, followed by vocational skills training, practicum experience, and finally, entrepreneurial skills training. The component of practicum experience was a unique opportunity for trainees to integrate and apply practical skills and training learned through prior experiences in their respective training work environment. These quotations imply that the course contents of some training centres include an integration of vocational training with entrepreneurial training at the same time to allow graduates to start their own small business [13]. The study [8] titled “Practical Recommendations to Improve the Quality of Training and Methodical Support of Professional Teacher Education” aimed to develop practical recommendations to improve the quality of training and methodical support of professional pedagogical education. The study sample consisted of 250 teachers, 300 students, and 100 staff of the education authority. They took part in the identification of quality performance criteria of training and methodical support. The study used an integrative approach, one of the key results indicated that assessing the quality of the training programmes can be performed by improving the training procedures based on the state standards, where state standards include the quality of information and teaching methods [8]. Therefore, the quality of a training program can be fed through building the training material and procedures according to the state standards of professional development. In [14], it was developed a content-based training needs analysis for physics teachers to identify in-service teachers’ needs and expectations in a PD program. 60 teachers participated in the PD program which included knowledge, misconceptions, teaching strategy and assessment. The result of the study indicated that teachers/learners recommended having quality trainers for training delivery, wanted consideration given the physical environment, and not to roll out any very short PD program. Furthermore, the PD program should provide options to select suitable topics rather than forcing teachers to attend the PD. Teachers who are learners in this study recommended that they should participate in designing the training and developing the PD content to share the learning difficulties. However, the researchers suggested conducting communication activities between trainers involved in facilitating PD and their learners to standardize the process and to unify the understanding. A study of [7] aimed to assess the quality of teacher education through understanding student perceptions. Teacher education was identified as an important criterion that imparts effective knowledge to students, while comparing the perceptions based on gender, type of institution, and masters versus bachelor’s education programmes. The context of the study was teacher education institutions in Pakistan, where three government colleges and four departments of a university were considered for the study. One of the key results of the study emphasized links between teacher preparation through academic institutions and professional development programmes and between the student’s performance according to students’ perspectives. The study also shows that preparing teachers should include practical activities that can be applied later to their students. Based on Kirkpatrick levels in assessing professional development programmes, the second level which is participants’ learning, can be an essential source for improving the quality of the training content by analysing the results of this level [16]. The second level of Kirkpatrick measures the attained learning experience. Learning includes knowledge, skills and attitude, which means that the content of the PD should

address the three components of the learning concept. Hence the objectives should be written using the exact verbs of each component of the learning concept. Another source for improving the quality of professional development training is having a complete list of the experts' skills, based on the study [11] which aimed at identifying methods of designing content for educational institutions in Russia based on Russian professional standards and the EU Qualification Framework. An additional source of the high-quality professional development programmes is the focus on learner-centered environment which can be achieved through engaging learners in activities where they apply their knowledge in their own contexts [3]. Researchers involved in this study used an example of the UAE governmental institutions that develop, deliver and evaluate PD programmes and qualifications, it is the Continuing Education Center (CEC) in The Emirates College for Advanced Education in Abu Dhabi City in The United Arab Emirates. The CEC is a licensed and registered training provider in UAE. It has listed the characteristics of the high-quality PD content as follows [4]:

- PD content should have material for the trainer and trainees.
- PD content should have a clear set of objectives covering knowledge, skills and attitude.
- Topics of PD content should be organised and presented in a sequential and logical manner to meet the learning objectives.
- Training techniques should be used to suit the nature of the topic.
- It is recommended that PD content should be action-oriented.
- Using clear language when developing PD content.
- Using a formative and summative assessment as key parts when developing a PD content.
- High-quality PD content should incorporate technology.

CEC has defined a quality assurance system to improve the quality of the PD content. This system describes the high-quality PD content and provides a systematic approach to enhance the PD program process, delivery, evaluation and the whole training design. The QA system components include the following:

- QA system involves different roles for different staff. It involves the subject matter experts, technical instructional designers, the projects managements to manage the training delivery and logistics, the TNA specialist to develop and to use the assessment tools and the quality assurers who carry out the QA process.
- QA system provides the comments, recommendations, feedback on PD content to suit the purpose of it and provides the recommendations for enhancing the training delivery and evaluating the whole PD.

1.4 Research Limitations and Scope of Review

This research is limited to address the problem according to the following limitations:

- Addressing the quality assurance process of developing teacher education professional development content.
- Addressing the quality assurance process of developing soft skills content.
- Enhancing the training content that is meant to be delivered to only adult learners.

- Limited to the available resources for the researchers for the literature review related to quality assure the PD content.

As all the previous literature review studies tried to address different aspects related to the quality assurance of the professional development opportunities and programmes and describing high-quality PD content in general and preparing teachers, this research is aimed at proposing a new quality assurance model to develop a high-quality PD content for educators in UAE.

2. Methodology

2.1 Context of the Research

This research addresses the quality assurance process for improving the educational professional development programmes, that are intended to be delivered to individuals throughout UAE training centres in both the public and private sectors. Many organizations have quality assurance systems in the UAE; though they are not training providers, they provide guidance to training centres in terms of setting the framework, outlines, expected performance criteria and goals of training. Usually, these organizations in the UAE are awarding bodies; they do not provide training programmes while they are managing and administrating the training process for the training related to the offered qualifications. Many governmental organizations have their own training department that is responsible for providing professional development programmes for either their employees or the community at large. This research revised both the literature review that addresses the characteristics of high-quality professional development programmes and a government organization that provides PD programmes for learners (Continuing Education Center at Emirates College for Advanced Education in Abu Dhabi City in the United Arab Emirates) to propose a high-quality model for the quality assurance of content that is being offered in the UAE's training centres. Moreover, this research also reviews the stakeholders' thoughts, beliefs, and experiences in making professional recommendations for controlling the quality assurance process of the professional development content. To collect valid data for the research, researchers decided to use the document analysis method to collect the data from the historical literature review.

2.2 Research Method

Researchers used the "Literature Review Survey" as a method to review all documents related to the quality assurance systems of PD content and revising the documents related to the researchers' context which is the Continuing Education Center at Emirates College for Advanced Education in the City of Abu Dhabi in the United Arab Emirates. The literature review is a narrative review in which the researchers listed many studies that address a closely related framework and research problem [18], where all conclusions will be gathered and summarized. The following shows the study design:

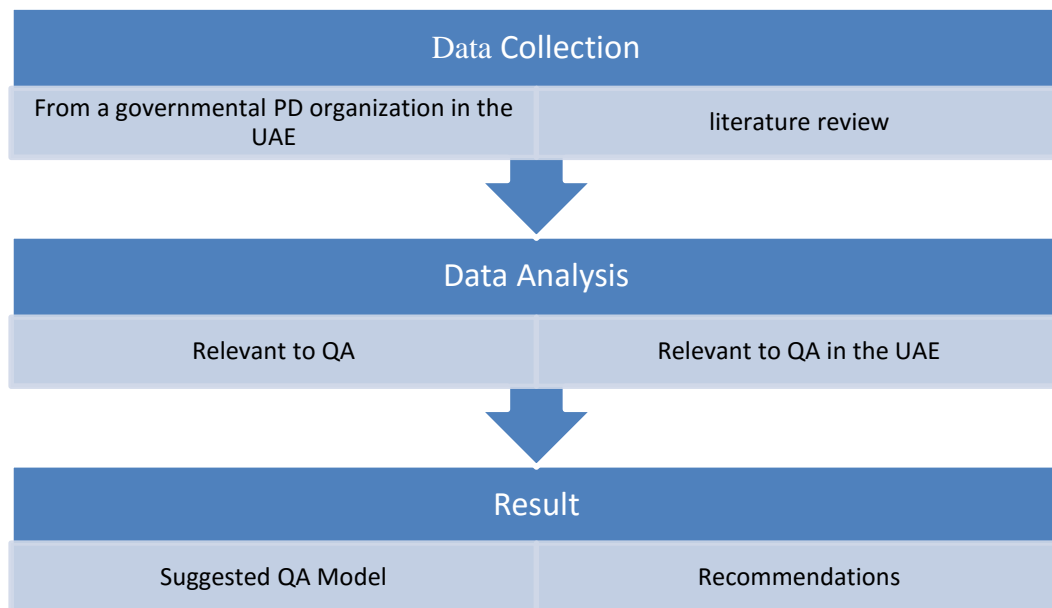


Figure 6

2.3 Data Collection Methods and Procedures

Researchers collected the data and tracked the development over time to formulate their conceptual framework; they have searched in the electronic databases that are available for the researchers in the academic institution that they are employed which is “Emirates College for Advanced Education”. The researchers limited their research to authors who addressed the quality of content in the professional development programmes in the educational sector or any relevant resources. A collaborative session was done by all the researchers to combine relevant information and thoughts to feed into the literature review. After collecting all the data, researchers worked together to finalize the order of the literature review and sequence the topics and subtitles.

2.4 Data Analysis

After revising and reviewing the literature review, the researchers collected and analysed data into three categories. The first category has data that addresses models of quality assurance to enhance the PD content, the second category has data that addresses the characteristics of high quality PD content, and the third category has data that addresses a UAE example of a governmental PD provider. In the following, Table 2, researchers reviewed the literature and summarized the key components of a quality assurance system for developing high-quality PD content. In Table 2, the common characteristics that most of studies emphasized are defining a structured review process that starts from the learners’ need, which could be collected through the training needs analysis TNA, and continue to go through designing and validating the training activities, tasks, assessments, and highlighted the importance of the communication between all involved experts to ensure the smooth transition of feedback from a station to another.

Table 2: Characteristics of Quality Assurance Model for Developing a high-quality PD Content

Characteristics of Quality Assurance Model	Structured process	Components of the QA of PD programmes	Delivery mode is defined
[2]		Trainers, learners, supervisors, assessors, training needs analysis, learning environment, and the training content	Through workshops or sessions
[6,17] & [12]	QA the PD program should address the training steps which are: TNA, the instructional design, testing the validation of the PD, PD implementation and the Evaluation		
[15]	A comprehensive process that starts by setting the aims, goals and objectives, and includes developing the theoretical knowledge, designing the activities, training techniques and methods, and the assessments	Assessing the following: Aims, goals and objectives, the theoretical knowledge, the design of the activities, training techniques and methods, and the formative and summative assessments	
[8]	Linking the quality of a training program (content and procedure) with the State standards		
[13]	The structured process of a QA for PD content starts with learning need assessment, followed by vocational skills training, practicum experience of the skills		
[14]	<ul style="list-style-type: none"> - TNA should be conducted with the collaboration of learners to share the difficulties. - Training process should be done through communication between trainers involved in delivery and between trainers and their learners 	Trainers quality in terms of training experience and considering the physical training environment	Workshop or seminar. Should NOT be based on transferring predefined knowledge given in a dominant mode and in a very short time

Many studies as shown in table 2 identified the key elements that a strong training design should have like: Goal, objectives, training activities, formative and summative assessment, theories, knowledge, tasks and training techniques. They also indicated the possible medium that can be suitable to deliver the training, for example, a workshop, seminar, webinar, session. As all of the previous elements were identified to be part of the whole quality assurance model, the following table (Table 3) provides more in-depth perspective to what is the characteristics of effective and high-quality PD content based on the literature review:

Table 3: Characteristics of a high-quality PD content

Characteristics of effective PD content	PD content offers learning by practice	PD content is well constructed and is learner-centered	PD content is designed to benefit the end-user
[6,17] & [12]		Should include various training methods, and training aids	
[9]			Assess the impact of teachers practices on their students' achievements
[8]			The quality of training content should affect the application of teaching methods on students
[7]	Preparing teachers/learners by academic institutions and by attending the PD should include practical activities that can be applied later with their students		
[13]	Vocational skills training and practicum experience of the skills should be part of the PD content		
[14]			The end-user, should participate in designing the training and developing the PD content to share the learning difficulties

To wrap up on the results of the previous studies, it can be said that a high-quality PD content should provide the learners an opportunity to practice what have been learned, in other words, it aims to identify what learners have to know and able to do. Furthermore, a PD content can be effective if it involves the learners in the learning journey through the planned activities. Finally, based on the data gathered from the researchers' workplace (the Continuing Education Center at Emirates College for Advanced Education in the city of Abu

Dhabi City in the United Arab Emirates [4], the training content forms the basis to build training as follows in Table 4:

Table 4: Characteristics of PD content from a UAE governmental training institute as a sample

Characteristics of a high-quality PD content in a UAE governmental training provider		
Achieving the training objectives	Training tools and techniques varied and numerous	Includes a training manual for the trainer, and reference material for the trainee
Interesting, motivative to learn	Content is logically organized, from general to narrow topics	Various training aids are supported
Simply produced and designed	The materials are graded from the application stage to practice stage until application	Offers opportunities application
Has a clear instruction	Relevant to the actual performance of the participant	Has action-oriented activities

The Continuing Education Center CEC at Emirates College for Advanced Education covers more aspects of effective PD content like the fun side, which is important to create a balance between the benefit and the joy in the training program where all of the fun activities will achieve the desired goal. Another important side that the CEC covered is the clear instructions that are needed for the facilitators, trainers, educators that will deliver this training content. This will allow less personal interpretation for the training content and provides more clear guidance on the way of delivering the training content as meant to be delivered by the instructional designers, this simple action will close the gap between the client's needs and the training facilitators as the instructional designer along with the QA team ensured to communicate what is required through the developed content. Where the whole quality assurance system that they follow has several components that are linked to each other in well-identified roles, the following table 5 shows these components:

Table 5: Components of Quality Assurance System to improve the quality of the PD content in a UAE governmental training provider

Components of Quality Assurance System to improve the quality of the PD content in a UAE governmental training provider		
The training process includes the development of PD content, delivery, assessment and future improvements	QA process addresses trainer, trainees, the PD content, logistic management staff and the learning environment	QA recommends the delivery mode: Workshops, sessions, seminars, & webinars.
QA includes observations for training's implementation	QA includes assessing the assessment tools	QA includes standardization activities to enhance the PD content and to enhance the training delivery.

3. Results and Discussion

3.1 A Proposed Quality Assurance Model to Improve a PD Content

To answer the first research question, “What are the key components of a Quality Assurance system to improve PD content?”, we have summarized the analysed data collected by the literature review and by a UAE PD provider as an example. Figure 2 shows the key components of a QA system to enhance professional development and educational content.

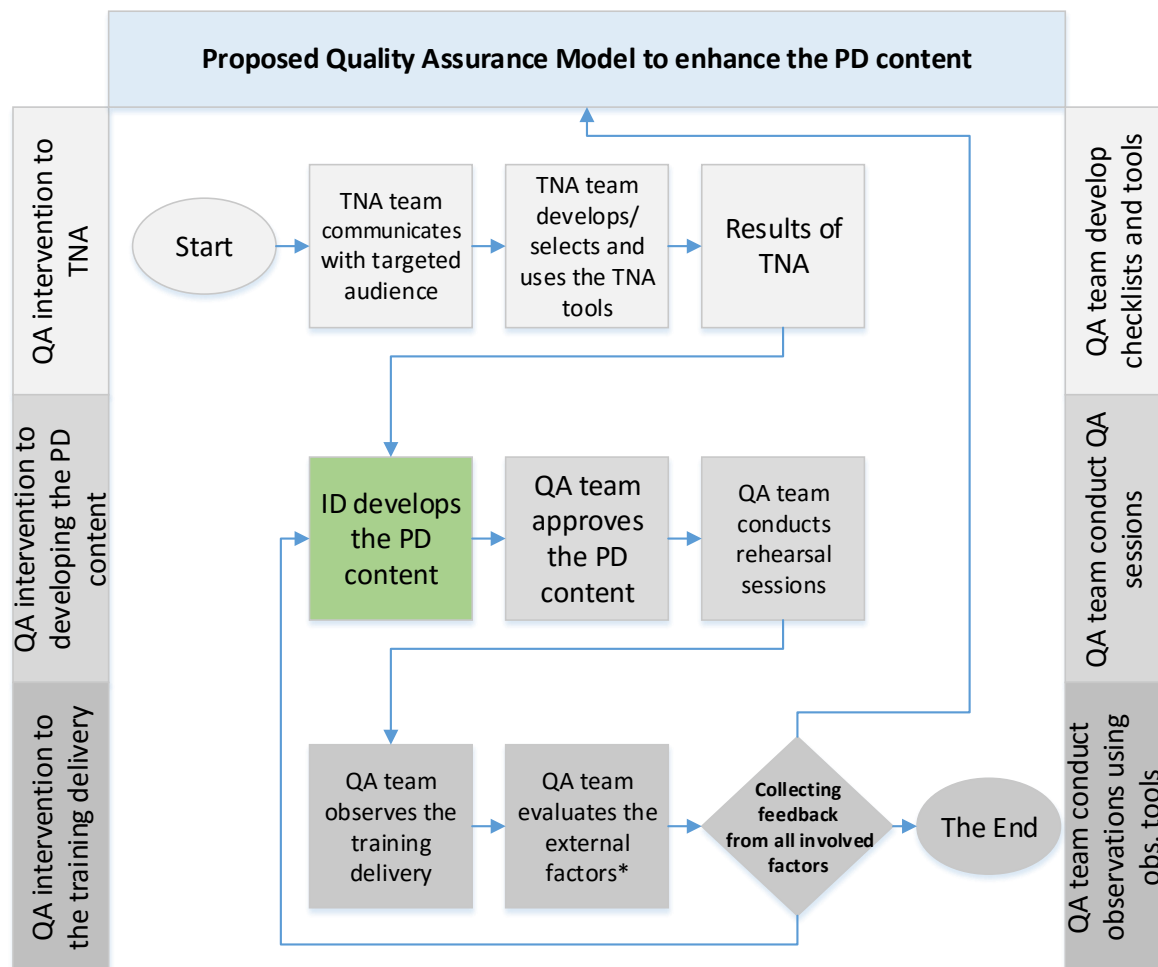


Figure 2: Proposed QA model to improve the PD programmes’ content

*External factors like learning environment &/or the delivery mode (online, face to face, etc.)

This quality assurance model provides detailed procedures and steps that can support professional development providers to build their quality assurance system inside their organizations. The QA Model can be typically used to monitor and evaluate the development of PD content. It constructs a robust system to customize effective PD content that meets the real needs of the learners. The Quality Assurance Model includes the components that were listed in the following studies: [6,17&12] are related to the structured process. This structured process starts with the training needs analysis (TNA) of the target group, which was stated in the [13], where a QA team

should communicate with the learners to discuss their specific needs that can be tailored in the professional development programmes' content. TNA tools development should also include collecting the data from the vision and the mission of the targeted audience organization and should be aligned with the PD national standards and state regulations, for example the CEC [4]. The TNA tools are customised to fit with the government sector that is regulated by the governmental awarding bodies which develop the national frameworks of the qualifications and professional developments programmes; these tools will collect specific data to feed into the PD content development process; this component was added to the QA model based on both resources [8,4]. This proposed QA model took into consideration the results of [2,14], it involves all staff and factors involved in the training, in general, such as the instructional designers, trainers, trainees, supervisors, TNA team, quality assurers, this broad involvement will provide opportunities for learners or trainees to share their learning difficulties. In addition to these factors like: aims, goals and objectives, the theoretical knowledge, the design of the activities, training techniques and methods, and the formative and summative assessments, all of these were included in the instructional designer step; this also was indicated by [15]. However, it will be explained in detail when answering the second question of this research. Reference [7] described an important component that should be taken into consideration to improve PD content based on a quality assurance step, which is to apply the developed content by conducting the activities in a practical context. Therefore, this QA model proposed "Piloting the content" to gather the feedback before finalizing the final version, especially when this content will be used for a massive target audience. Since [2,14] identified the mode of the training delivery, this QA Model also proposed a final step to improve the PD content which is "evaluating the external factors". These external factors would feed into PD content and could require some changes, for example, changing the delivery mode from face-to-face training to online training delivery will lead to changing activities to suit the new virtual learning environment. These external factors should directly feed into the content development process to reflect the required changes in the content. Assessment another key component that must be included in the PD content [15,14]. Hence, the need to assess the assessment tools is a quality assurance step in the proposed QA Model. Assessing learners or trainees in PD will support trainers in monitoring their learners' progress and measuring what objectives have been achieved from the identified learners' needs. Assessment should be formative and summative, in other words, assessment for learning and assessment of learning. This QA model includes assessment as part of the PD content where instructional designers develop the assessment tools; this step confirms what CEC listed [4] as mentioned above in table 5. An additional dimension to employ this QA model in enhancing the PD content can be through identifying different stages of the QA process without additional cycles. For example, a good practice of employing this model can form 2 teams, one is for content review, where this team will ensure that client's needs are met within the first stage and the list of specific objectives of the required content are now finalised and there is an identical understanding between content developers and client's needs representatives. The second stage, can involve the QA team or who would not be interested to read client's proposals or needs, and will only look after the quality of the knowledge and activities in the PD programs and to ensure that the developed content will contribute directly in achieving the specific list of objectives. These 2 teams can be organized and regulated in the QA model as a whole. As a result of this action, more monitoring information can be linked to the assigned person in the assigned team and will save time of reviewing everything to diagnose the problem and the responsible for it.

3.2 A Proposed Review process for PD Content Development

The Quality Assurance Model is the lead system that directs, guides and constructs the process of enhancing the PD content. It is a system (Human or Object) that can affect the PD content development cycle. The QA Model controls all variables that are considered resources for the instructional designers to build their content (For example, TNA's results, Trainers' input, Learners' input, feedback from the pilot training delivery, etc.) according to [16,11,3,4], another cycle starts which is the communication between instructional designers, quality assurance team, translators, proof-readers and project staff who are responsible for managing the logistics related to PD content format and production. The review process is part of the QA model, in this part, the results highlight what happens when instructional designers starts to construct their professional development program. In this process, all the involved experts collaborate together to connect one's output with the next one's input. As the instructional designer develop the goals, objectives, introduction, activities, assessment and the tasks that the learners will carry out, he might loss some details, leave a gap between the activities, or he would need more smooth transitions between activities and tasks, therefore, the first station of QA will review all of these based on their checklist, standards and criteria and will write their feedback either by inserting comments or by feedback reports that the instructional designer will be notified that their content has been reviewed and some requirements are needed, or sometime no need. This process continues till all of the feedback rounds are sufficient for QA team to release the content.

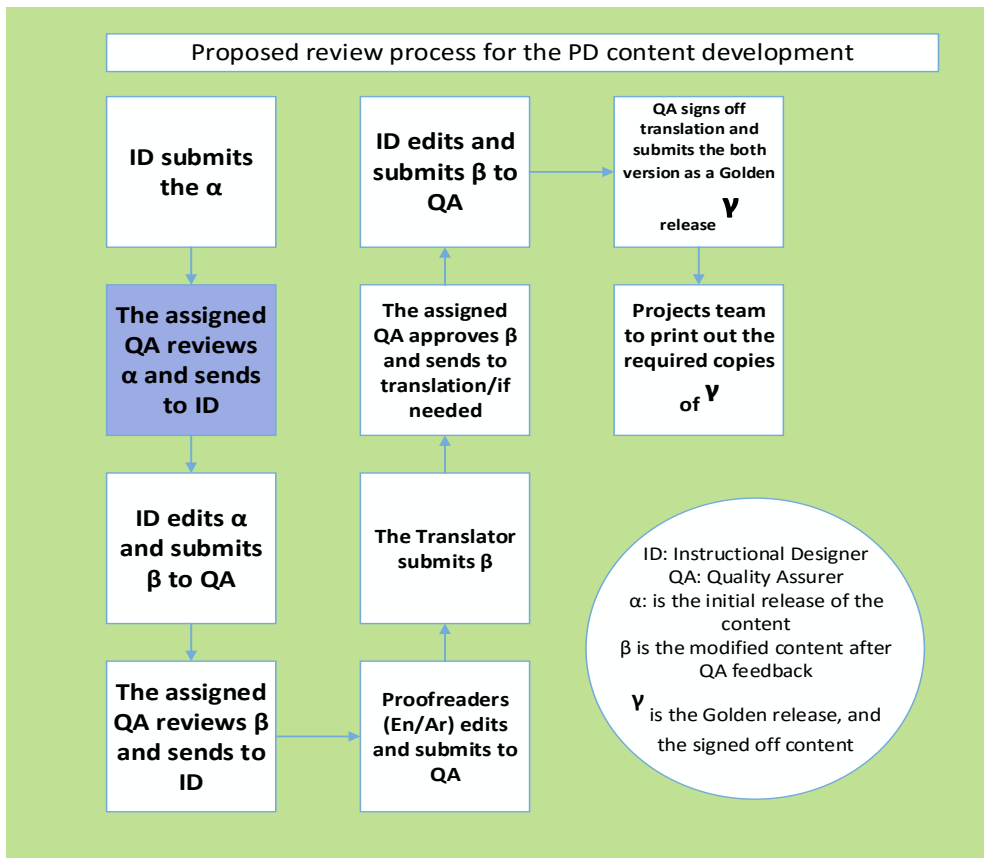


Figure 3: Proposed Review Process for the PD Content Development

More specifically, and to answer the second question, which is “What are the characteristics of a high-quality professional development content in the UAE?”, there needs to be a link between the results of the QA model and the characteristic of PD content: see the following Figure that highlights the Quality Assurers’ roles when providing their feedback, comments, recommendations and suggestions to develop a high-quality PD content as follows:

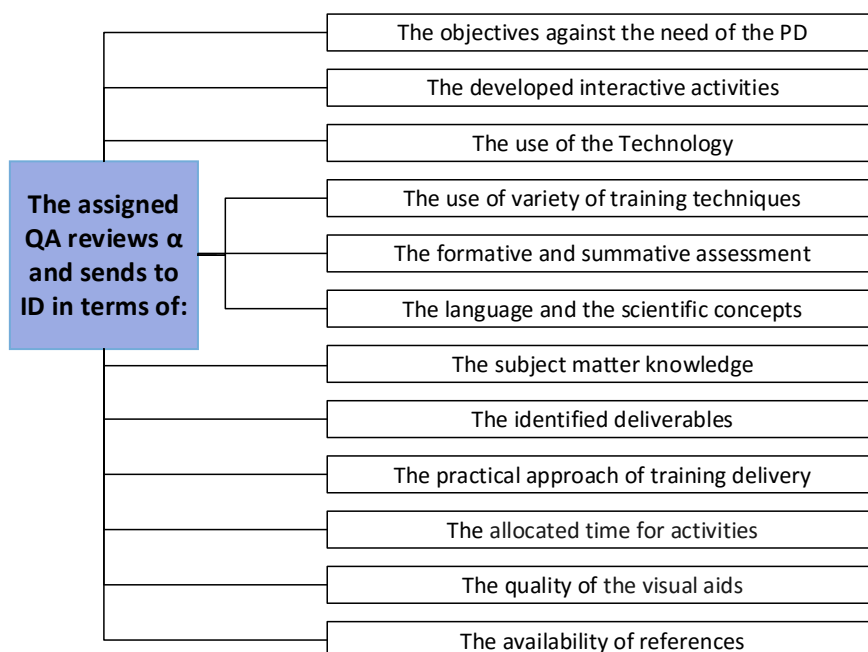


Figure 4: QA Team Checking the Characteristics of a High-quality PD Content

Researchers collected and analysed data from different resources and consolidated it in Figure 4; it includes the main actions that the quality assurance team conducts when receiving content from instructional designers and they provide their feedback and comments according to the list of characteristics that describe a high-quality content for professional development programmes and qualifications. The identified actions are meant to be in the technical meeting or discussion. At this stage, the quality assurance team should focus on the accuracy of the provided information, the structure of the activities, the smooth transition from the general introduction to the specific subjects, and from the easy to the most complicated parts of topics. In these specialised stages, the quality assurance team should be qualified in the specific subject area; they will review the content as teachers, trainers, learners, supervisors, socio-scientific specialists that filter any piece of information that could lead to uncertain situations. As the quality assurance team aims to provide high-quality PD content, they will recognize simple mistakes, at the same time, they will support any simple fact with the required reference, and in our case, all research, references and resources should be written and published recently to avoid falling behind the current theories and technologies. It is indicated in Figure 4 that all of the recommendations that were mentioned in the literature review have been included to provide the best characteristics of high-quality PD content. It included the criteria “PD content offers learning by practice” [7,13]. The proposed characteristics for

describing the effective PD content also ensured the use of various training methods and training aids, which leads to building the content to engage the learner rather than lecturing and focusing on the instructor as highlighted by [6,17,12]. As these actions that QA team take to enhance the PD content, this list of characteristics emphasized the importance of considering the needs of the end-user as indicated in the following studies: [9,8,14]. If we conclude that the trainers, teachers, educators and other educational instructors should transfer the knowledge, skills and applications to their learners, this requires the QA team to ensure that the PD content contributes in preparing these trainers to have better teaching practices. The Emirati government training centre “CEC” has provided a compressive approach, where they benefited from these studies and incorporated them in a well-identified list of characteristics for high-quality PD content as explained in table 4 [4], as their characteristics have been included in this proposed Figure for actions that a QA team should follow to enhance developed content.

3.3 The Breakdown of the QA Model and the Link with the Sub-processes

Figure 5 illustrates the proposed QA model as it is the umbrella for all actions, procedures, and processes that will be followed to enhance the quality of PD content. The first chart is the proposed QA model as a collective approach that includes all the variables that should be controlled which are affecting the quality of the content directly and indirectly. An example would be the results of the training needs analysis. In the same Figure 5, the step that is highlighted in the Green Box (Instructional Designers “ID” develops the PD content) has a detailed process that is explained in the second derived chart which is the “Review process for the PD content development”, in this process, there are dedicated procedures to be followed to ensure the quality of the procedures that links instructional designers with the other colleagues in the content development process like proof-readers, translators and other professionals. Under the review process in Figure 5, another process has been identified which is highlighted in the Blue Box, which includes a well-identified list of actions that should be taken from the technical QA team who are specialized in the subject area.

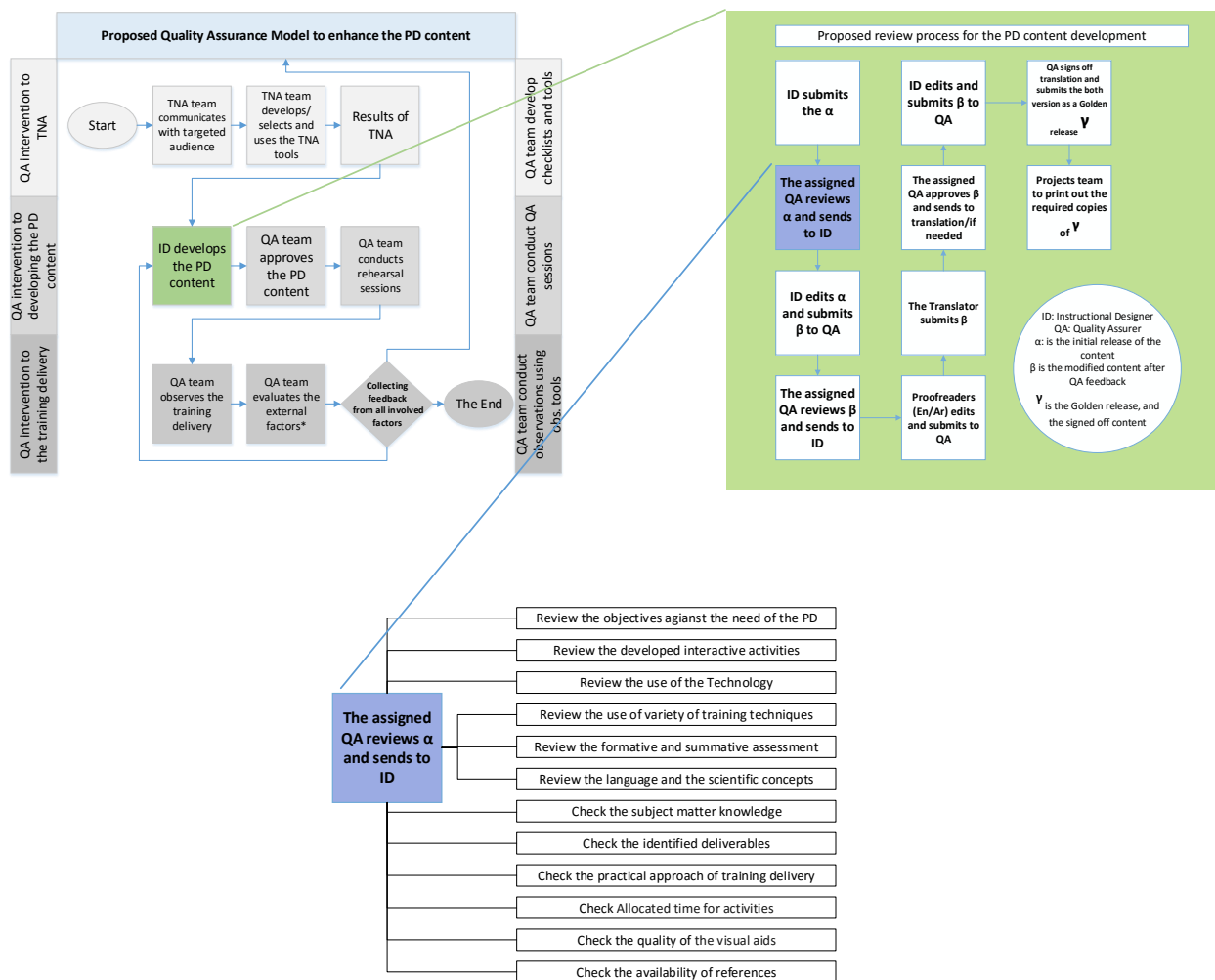


Figure 5: The Serial Link between Stages of QA

3.4 Involved professionals in different processes

The following table 6 shows the involved professionals in each process of the whole QA Model:

Table 6: Involved professionals in the different processes

Parts of the QA model	Involved professionals
The Proposed QA Model for enhancing the PD content	All professionals: TNA experts, Instructional designers, Specialized QA team, translators, proofreaders, educators and others.
The proposed review process for the PD content development	Only the: Instructional designers, Specialized QA team, translators, and proof-readers.
The list of actions that QA team takes in the technical stage.	Only the: Specialized QA team in the subject area.

4. Conclusion and Recommendations

Based on the studies mentioned in the literature review and the proposed quality assurance model for enhancing the professional development programmes and qualifications' content, it is highly recommended to consider all the procedures and actions that were structured to place professional involved in a well-identified process that conveys the information and feedback to address the needs of the learners and to customize the developed content with the updated current technologies used in training and teaching. The proposed Quality Assurance Model takes into account the training needs, instructional designers' and learners' feedback, content experts and other involved professionals (e.g.: Proof-readers, Translators, etc..) when developing the professional development content and releasing it for training delivery as a final draft. The most important aspect is enhancing the structured quality assurance model itself as a life model that is able to receive feedback from the several followed procedures by the involved professionals.

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