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A study on application of the edexcel quality assurance system in Turkey

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Abstract

The Edexcel Quality Assurance system is a worldwide applied education and training accreditation system. It was originally created to be applied in the UK and Commonwealth countries but it is now expanded into many other countries across the world. This system is also applied in a maritime education and training institute in Turkey which has a different education system.The aim of the study is to define the major problems areas of the system during application of Edexcel Quality Assurance System in Turkey and make proposals to overcome these problems.The study is based on the survey results of a questionnaire for the lecturers who are familiar with this system which will serve to define problem areas. A Pareto Analysis will be conducted on the findings of responses from the lecturers. The results of the Pareto Analysis will be discussed to produce some proposals to facilitate the operation of the QA system.

1. Introduction

The Edexcel Quality Assurance system is a worldwide applied education and training accreditation system. It was originally created to be applied in the UK and Commonwealth countries but it is now expanded into many other countries across the world. This system is also applied in a maritime education and training institute in Turkey which has a different education and training system. The aim of the study is to define the major problems areas of the system during application of Edexcel Quality Assurance System in Turkey and make proposals to overcome these

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problems. The application took place between 2003 and 2011 in the TUDEV (Turkish Maritime Education Foundation) Institute of Maritime Studies. The QA procedures were applied to 774 students from navigation and marine engineering Higher National Diploma programmes for three years education period each. 34 lecturers from different disciplines practisedEdexcel QA procedures. The education was conducted in the English language.

The Quality assurance is the process that ensures all BTEC (Business and Technology Education Council) approved qualifications are assessed to the same high standard. The majority of assessment for BTEC and NVQ/SVQ (National Vocational Qualification/Scottish Vocational Qualification) programmes is completed in the approved centre and the quality assurance process helps ensure managers, internal verifiers and assessors are supported in assessing to a consistent and high standard.

2. Methodology

An expert group of lecturers who have assumed both assessor and internal verifier role in the Edexcel system is gathered to define the problem areas encountered during Quality Assurance process. The group has reviewed the documentation used in both internal and external verification. Following a brain storming period the following research method is decided;
- Creation of a fishbone diagram to define problem areas,
- PRIMO (Priority and Importance) study method will be applied to findings and the most important questions will be selected to be asked the related people who have participated in the Edexcel QA process,
- Application of a questionnaire and evaluation of the results under the Total Quality Management principals,
- Presentation of the proposals which will facilitate the application as a result of the overall study.

The expert group consisted of five lecturers made a two days study to accomplish the first two steps. Fifteen lectures have been responded the questionnaire. The expert group has made independent studies on the results of the questionnaires for a weekend period. The final part has been achieved as a result of two days group work.

3. The quality assurance system applied

3.1. Quality concept

Quality is the totality of features and characteristics of a product or service that bears on its ability to satisfy stated or implied needs.

Quality Assurance is all those planned and systematic actions necessary to provide adequate confidence that a product or service will satisfy given requirements for quality.

Quality Control is the operational techniques and activities that are used to fulfil requirements for quality. The Quality Control also includes the systematic process of measuring actual quality performance and comparing it with a given standard to enable action on the difference.

The research studies are also concerned with quality management.

Quality Management is the aspect of the overall management function that determines and implements the quality policy.

Total Quality Management is defined as the management philosophy and the organisational practices that aim to harness the human and material resources of an organisation in the most effective way to achieve the objectives of the organisation.

3.2. The edexcel quality assurance system

The quality assurance process gives accreditation authority the opportunity to identify and provide support where it is needed in order to safeguard certification. It also allows recognising and supporting good practice. Pearson operates a robust quality management system and the company is committed to quality in everything it does. The Quality Assurance model has three parts (Pearson, 2013):

- At centre recognition and qualification approval when Pearson carries out checks to assure that sufficient, appropriate and high quality human and physical resources are in place to ensure that everything is in place to start delivery of the customised qualification
- Internal verification which is a quality process internal to each organisation
- Standards verification which is conducted by Standards Verifiers who are appointed by Pearson It is a system designed to ensure that the assessment methods that the centre are using are fit for purpose and that assessment decision made by respective centre's assessors are valid, reliable and consistent with benchmarks

The QA process carried out at an appropriate time during the 11 month period from 1st October to 31st August each year.

3.3. TUDEV quality assurance system

The following QA criteria are declared in the TUDEV Quality Manual for Programme Management and Operation:

- A cost/benefit analysis together with market research for the proposed programme has been conducted prior to consideration by the Institution.
- Physical resources for the programme have been identified.
- The members of staff involved are sufficient in number and appropriately qualified and experienced.
- A staff development and training plan has been prepared.
- A system for taking students' and staff views has been established.
- The details of staff currently involved in delivery, assessment and internal and external quality assurance and control, are available.
- A leader for the programme has been identified and the roles of other staff involved in the programme have been established and details regarding technical and administrative support staff are available.
- A programme handbook identifying the following is available:
  - o Description of the programme
  - o Rationale for the programme
  - o Aims
  - o Intended learning outcomes
  - o Programme structure
  - o Learning and teaching strategies
  - o Assessment strategy
  - o Student experience – support, progression and achievement.
  - o Programme review and evaluation
  - o Entry regulations
  - o Academic regulations
  - o Examinations – regulations and procedures.
  - o Institution Management Structure
  - o Appeals – procedures.
  - o Counselling and advice
  - o Summary Syllabuses
  - o There is a programme committee with a defined composition and terms of reference to oversee the programme operation and evaluation.

The significant issue for QA assurance is related to the "Assessment strategy" and "Student experience – support, progression and achievement" which are subject to a routine Internal and External Verification process to prove a reliable education and training have been achieved.

The TUDEV Internal Verification audit process flow chart is shown in Figure 1. This figure clearly explains relations between assessors and internal verifiers to ensure all assessments are conducted in accordance with the established course aim and objectives. It is a time consuming process that requires many paperwork done and close cooperation between respective staff.
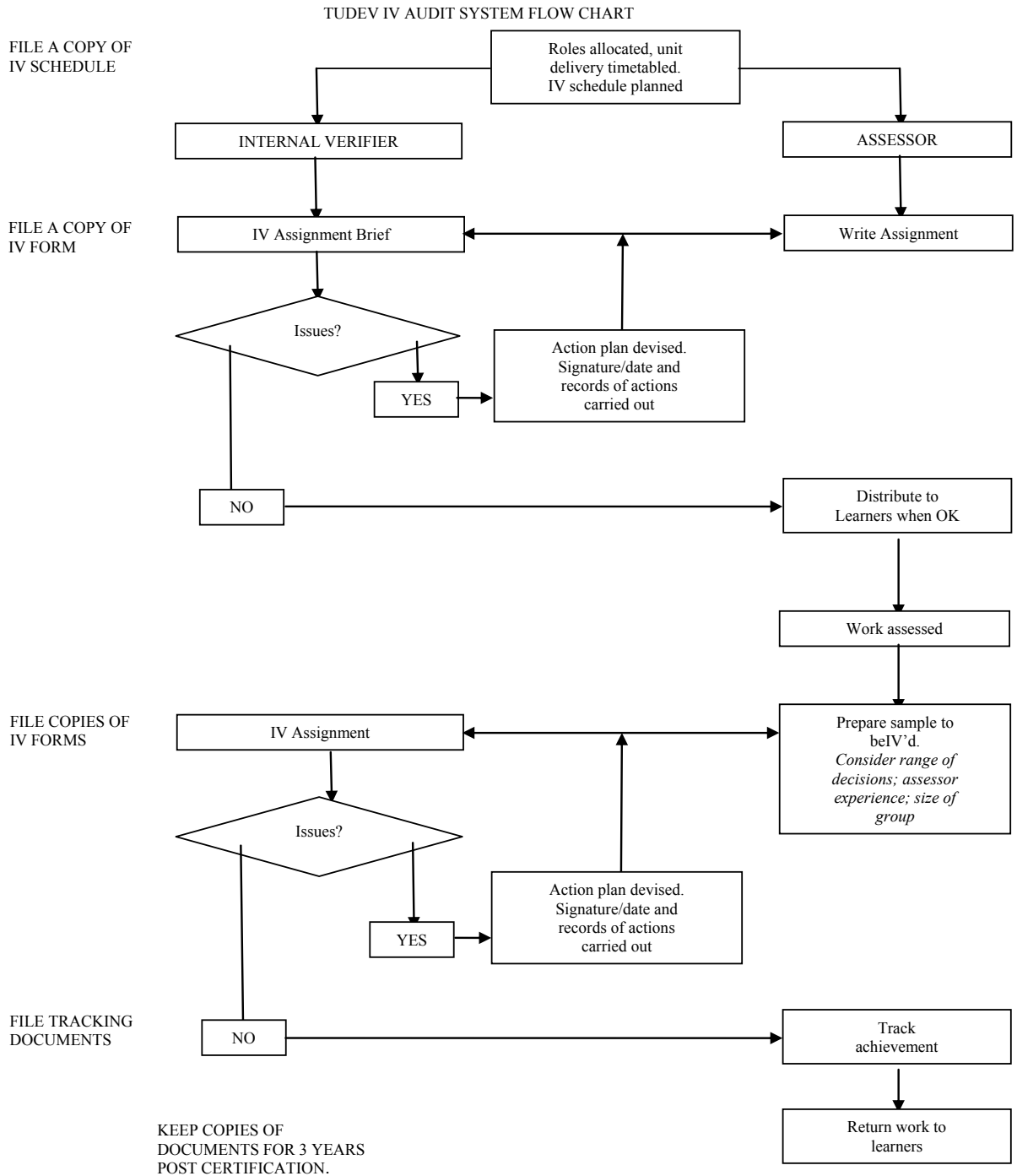
TUDEV IV AUDIT SYSTEM FLOW CHART

FILE A COPY OF
IV SCHEDULE

FILE A COPY OF
IV FORM

FILE COPIES OF
IV FORMS

FILE TRACKING
DOCUMENTS

KEEP COPIES OF
DOCUMENTS FOR 3 YEARS
POST CERTIFICATION.

Roles allocated, unit
delivery timetabled.
IV schedule planned

INTERNAL VERIFIER

ASSESSOR

IV Assignment Brief

Write Assignment

Issues?

YES

Action plan devised.
Signature/date and
records of actions
carried out

NO

Distribute to
Learners when OK

Work assessed

IV Assignment

Prepare sample to
beIV'd.
*Consider range of
decisions; assessor
experience; size of
group*

Issues?

YES

Action plan devised.
Signature/date and
records of actions
carried out

NO

Track
achievement

Return work to
learners

Figure 1: TUDEV IV Audit System Flow Chart

The 'Continuum' between Internal QA and External QA is shown in Figure 2. The IQA process is conducted by TUDEV staff. The External Verification process is conducted by the staff assigned by Pearson/Edexcel in collaboration with TUDEV staff.
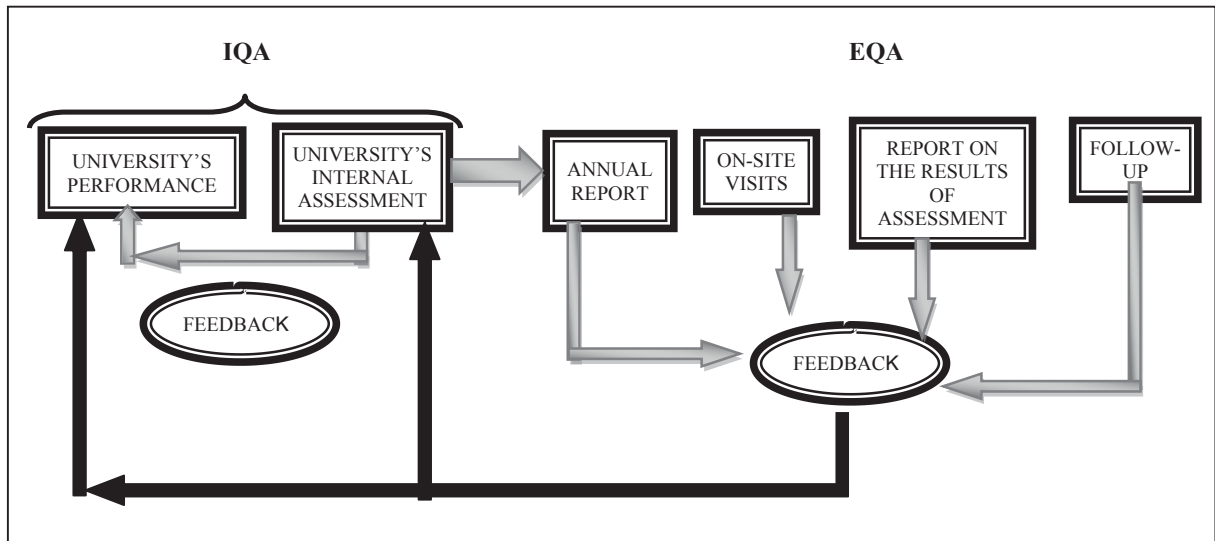

Figure 2: The 'Continuum' between IQA and EQA.

4. Application of the Research

The research has been conducted in the following steps.

4.1. The fishbone diagram

The Fishbone diagrams permit a thoughtful analysis that avoids overlooking any possible root causes for a need. Because of the function of the fishbone diagram, it may be referred to as Cause and Effect diagram (Watson, 2004). Using the fishbone diagram, the leading group become able to define the big picture which introduces possible causes or factors influencing the problem. The final shape of the diagram showed the area of weakness which should be rectified to overcome the main problems. Some findings which are considered less affects the problems are deleted or associated with other findings to avoid complexity and easily understand the overall problem.

- The main branches of the fishbone are defined as follows;
- Too much Paper work
- Too much time spent to prepare assignments
- Too much time spent to assess the assignments
- The difference between Edexcel and local grading system
- Different approaches between programme leaders and lecturers
- Different approaches between internal verifiers and lecturers
- The different approaches of the different external verifiers
- Misunderstanding of the system by the assessors
- Ambiguity of the British system for a different nation
- Insufficient administrative support
- Insufficient training for lecturers on the Edexcel applications

Last four subjects are considered not suitable for the inclusion into the questionnaires as a result of the PRIMO test.

4.2. The questionnaire

The first seven questions which are mentioned above are included in the questionnaire. The four different options have been discussed for defining the level of importance of each problem;
- Selection of only one item as the most important issue
- Giving a priority for each item between "1 and 7" which 1 is less and 7 is more important
- Giving a priority for each item as described in a special scale (0-Not important, 1- Not so important, 2- Affects but not so much important, 3-Important, 4- Very important, 5- Ultimately important)
- Applying the special scale and allowing participants to add other problems out of these seven items which they think important

The first option is not accepted because it may not cover the importance of the other problem areas and introduce insufficient input. The second option was not allowing the introduction of the problems which have the same level of importance. The last option which also covers the third option, gives the participants more freedom to evaluate the problem is found more suitable to be applied.

The questionnaire has been prepared taking into account the fourth option and the seven questions which are found at the Fishbone application. Only one additional problem area is introduced by the one participant concerning "time spent for feedback to learners". There was not so feedback from other participants and could not be included in the results. The results of the questionnaire have been checked and prepared for the Pareto analysis.

4.3. Pareto Analysis

The principle of the Pareto Analysis states that for many events, roughly 80% of the effects/problems come from 20% of the causes (Surhone et al., 2010). It is a type of chart that contains both bars and a line graph, where individual values are represented in descending order by bars, and the cumulative total is represented by the line. This technique helps the users to identify the top causes that need to be addressed to resolve 80% of the problem.

The Pareto Analysis is applied to the results of the questionnaires and introduced in the Table 1. The Pareto charts for the questionnaire is introduced in the Figure 3.

Table1.Theparetoanalysisof major problems areas related to QA applications

Causes	Results of Questionnaire	Percentage	CumulativePercentage
Too much Paper work	51	17.12	17.12
The difference between Edexcel and local grading system	50	16.78	33.90
The different approaches of the different external verifiers	49	16.44	50.34
Too much time spent to assess the Assignments	36	13.42	63.76
Too much time spent to prepare assignments	34	12.75	76.51
Different approaches between programme leaders and lecturers	32	12.41	88.92
Different approaches between internal verifiers and lecturers	14	11.08	100.00

1. *Too much paperwork*
2. *The difference between Edexcel and local grading system*
3. *The different approaches of the different external verifiers*
4. *Too much time spent to assess the assignments*
5. *Too much time spent to prepare assignments*
6. *Different approaches between programme leaders and lecturers*
7. *Different approaches between internal verifiers and lecturers*
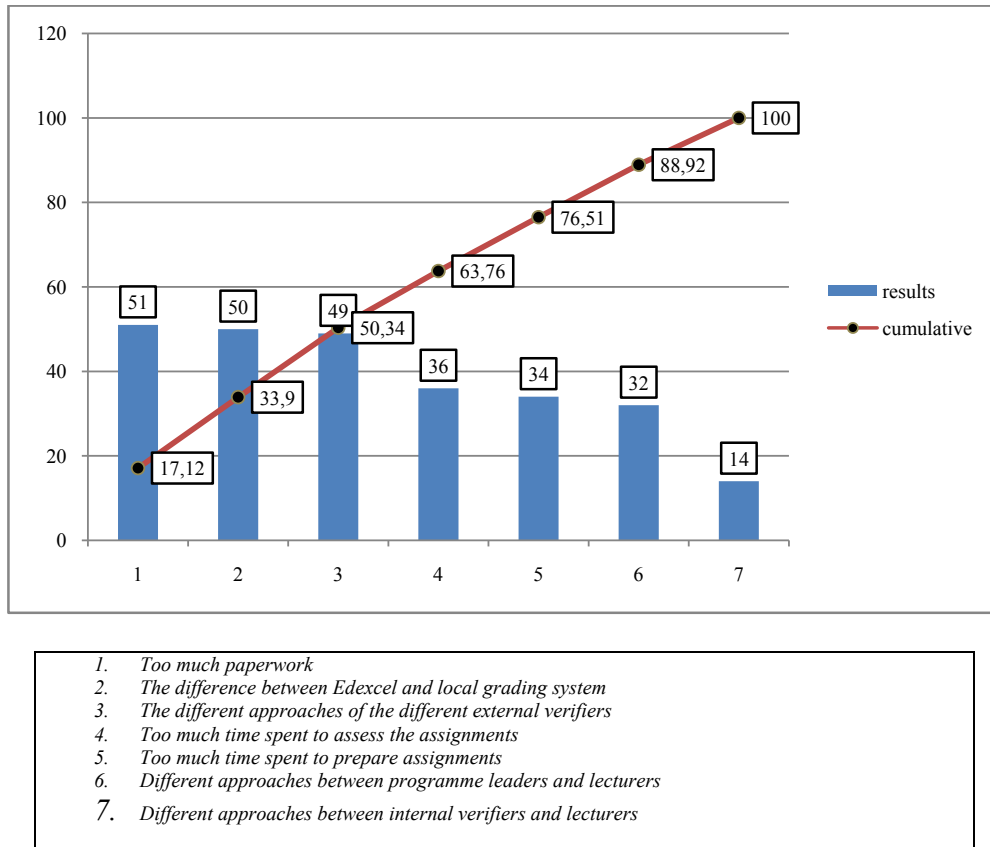
Figure 3: The Pareto charts for the questionnaire

There are two break points (5th and 6th points from the left) in the cumulative percentage line of the diagrams. These points occur when the slope of the line begins to flatten out. The factors under the steepest part of the curve are the most important. Hence, "too much paperwork" has the most significance level compared to other causes. "The different approaches of the different external verifiers", "the difference between Edexcel and local grading system", "time spent to assess the assignments" and "time spent to prepare assignments" have approximately the same importance level and these are more important when compared to "the different approaches between programme leaders and lecturers" and "different approaches between internal verifiers and lecturers". According to break points; "the different approaches between programme leaders and lecturers" and "different approaches between internal verifiers and lecturers" have the lesser significance level compared to the causes are indicated at the left side.

5. Discussions

The discussion is based on the findings of the Pareto Analysis assuming the importance priorities. The general principals of the management and sociology are applied during evaluation of the problem areas.

5.1. The system differences

The Edexcel QA system was created for the United Kingdom and is closely related to British culture. It is evident that there are significant differences between Turkish and British cultures and it is not easy to adopt the people to such a practice which is based on another culture.

We cannot understand these practices and beliefs separately from wider cultures of which they are part. A culture has to be studied in terms of its own meanings and values - a key presupposition of sociology. Sociologist endeavour as far as possible is to avoid ethno- centrism, which is judging other cultures by comparison with one's own. Since human cultures vary so widely, it is not surprising that people coming from one culture frequently find it difficult to sympathise with the ideas or behaviour of those from a different one (Giddens, 2000).

Actually the following problem areas are closely related to the cultural differences; "the difference between Edexcel and local grading system" and "the different approaches of the different external verifiers". Additionally bureaucracy is very widely applied in Turkey and that creates a negative impact on every level of society. The Edexcel system has introduced an extra paperwork for the users. So, the "too much paperwork" issue is also accepted as a problem related to cultural differences.

The grading system is directly related to student achievement and legally binding. The difference between local and Edexcel grading system is an area which may cause confusion and create legal problems. If a student fails in the Edexcel system but passes in the local system, what will be the solution? If you accept that student accomplished this course it would be contrary to the principles of the Edexcel system. The opposite will be the subject of a lawsuit.

To avoid any pitfall, the organization should make a business plan and this business plan should address possible legal complications (Lloyd, 2007). The organization should carefully investigate legal complications, before they decide to accept a plan for the adaptation of the Edexcel QA system in an institute which has a totally different grading system.

5.2. Extra work

The system users claimed that they spent too much time to prepare and assess assignment papers.

A number of the studies indicate that if pay is tied to performance, the employee produces higher quality and quantity of work (Ivenchevich and Glueck, 1989). All claims are based on extra time spent to achieve their duties related to new QA system. It is understood that the lecturers/assessors deployed in the Edexcel system application spent more time relatively rather than the other lecturers applying regular local system. But there is no evident shows compensation for the extra work which has been done. If there is extra work but no compensation, then this will create a negative impact on the assessors.

5.3. Simplification of the system application

One of the models which is suitable for public institutions, including educational and training institutions, is the European Quality Management tool for the Public Sector called the Common Assessment Framework (CAF). The CAF was primarily designed as a self-evaluation tool for public sector organisations at both local and national levels. The model is also intended to facilitate the introduction of more detailed evaluation criteria into the public sector evaluation process (Suban and Suban, 2012). Its content and structure follow the same logic as well-known Quality Awards models (Kovač 2003) and Quality Evaluation Model of Educational Projects 2012. The model involves five evaluation areas describing operations ('enablers'): leadership, strategy and planning, human resources management, partnerships and resources, process and change management.

Suban and Suban have proposed that the key aspects of the evaluation method of the CAF that could improve the application of a quality system:

- Simplification of assessment,
- Unification of assessment,
- Recognition of Good Practices, and
- Reduction of the influence of the human factor.

In order to reduce the paperwork a study should be made on the simplification of assessment procedures by the Edexcel. Taking into account the good practices in the other countries, a new unified assessment procedure to be applicable in the different countries should be introduced. Creation of a "fit to purpose" IT programme for planning the QA activities, preparation and evaluation of the assessment papers will reduce the paperwork and the work spent as well as increasing check and control process.

5.4. Different approaches between system managers and user

The Total Quality Management System (TQM) requires a lot of studies based on the feedback from employees and review of the procedures to correct the applications for achieving better quality and facilitating the work procedures.

Several companies have undertaken to change the rules under which they manage relationship with their employees by introducing the Quality of Work Life (QWL) programmes. Basically these programmes change the decision forum to Quality Circles and change the kinds of decision that are made (Freeman, 2011). A quality circle consists of seven to ten people from the same work area who meet regularly on a voluntary basis to define, analyse and solve problems in their area. In addition developing methods of reduction waste and improving quality, such groups also have the potential increase worker self-respect, improve individual capabilities, and developing supervisory personnel (Boone and Kuntz, 1987).

The different approaches between system supervisors (programme leaders and internal verifiers) and assessors show that there is not a strong link between management and users. There could be many attempts to solve this problem but the discrepancy still exists. The application of Quality Circle is deemed as a solution to solve this internal problem which is easier to overcome.

This problem also refers to lack of a sufficient training programme to adopt the respective personnel to handle the Edexcel QA system. A continuous training programme for all internal verifiers and assessors is highly important for the success of the system.

6. Conclusion

As a result of the study the following issues are defined as the most important areas which affect the easy and effective application of the Edexcel Quality system in Turkey;
- Excessive paperwork
- The difference between the Edexcel and local grading system
- The different approaches of the different external verifiers
- Too much time spent to assess the assignments

The followings are assessed the other issues which complicate the application of the system;
- Too much time spent to prepare assignments
- Different approaches between programme leaders and lecturers
- Different approaches between internal verifiers and lecturers

The following topics are recommended the other organizations which will be using the same QA system;
- The differences between the local and the Edexcel grading systems should be formulized before starting the application. Otherwise the institute may encounter some legal and administrative problems.
- The managers, lecturers and all respective staff should be well trained to fully comprehend the Edexcel QA system before starting application.
- The Student Achievement monitoring system should be adapted to new QA system and IT support should be provided. These will facilitate operations and interactions and provide a smooth passage from the local system to a new QA system.
- The Edexcell QA application needs more work and more detailed studies. The lecturers and other staff assigned to conduct this work should be compensated.

The Edexcel is also required to make a study to facilitate the application of the system in different countries. The simplification of assessment procedures will reduce the paperwork. A worldwide assessment procedure based on the

good practices and taking into account different cultures will facilitate the operation of the QA system. A simplified IT programme serving all users will reduce the workload and establish a good control and coordination system.

   Appendix 1: Questionnaire

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Appendix 1: Questionnaire

1. Please give a mark from 0-5 which explains the importance of the problem for each problems you have met during QA applications. You may also add other problems you think important.

(0-Not important, 1- Not so important, 2- Affects but not so much important, 3-Important,   4- Very important, 5-Ultimately important)

NO	PROBLEM	MARK	REMARK
1	Too much paperwork		
2	Too much time spent to prepare assignments		
3	Too much time spent to assess the assignments		
4	The difference between Edexcel and local grading system		
5	Different approaches between programme leaders and lecturers		
6	Different approaches between internal verifiers and lecturers		
7	The different approaches of the different external verifiers		
8			
9			
10			

2. If you have any further ideas or proposal please explain.