

## **Session 3-2**

### **Using Quality Assurance Mechanisms to Enhance Change and Organizational Learning**

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#### **Abstract**

The study presents how the national quality assurance system was used in Higher Education Institutions (HEIs) to lead change and organizational learning in Saudi Arabia. It investigates the stakeholders' perceptions and patterns related to the levels of implementation and change caused by Quality Assurance (QA) procedures used to close the loop at all levels. In addition, it elaborates on assessment and reflection methods used within the system to encourage continuous improvements and institutional learning and how they interacted with the organizational cultures.

“A system without a clear purpose moves in sometimes contradictory directions...unlike a system whose sense of purpose keeps it moving toward the same common path p 31 ” (Langford and Cleary, 1995, p31)

## **Background**

World class universities seem to have attained successes through their organizational skills in using quality mechanisms, and cascading and aligning them at the different levels so they can be powerful tools for creating collective learning, change, and improvement. However, newly established universities, like those of Saudi Arabia, may not have the required experience using these skills.

The Saudi National Commission for Academic Accreditation and Assessment (NCAAA) Quality Assurance was established in 2004, and trained HEIs on the system and encouraged them to implement QA systems and get accredited at institutional as well as program levels. In order to elevate the HEIs to the level of world class universities, Saudi National Commission for Academic Accreditation and Assessment (NCAAA) Quality Assurance System addresses spiral quality assessment and improvement cycles at all levels involving people in implementation, making reviews, improvements, and planning, sharing explorations and reflections that make collective learning through “Loops” (Darandari, 2013).

Institutions used QA exercises through documentation, assessment, and developmental as well as strategic plans put in place by institutional quality assurance leaders. Saudi HEIs achieved a lot in a very short time regarding establishing QA systems and preparing for first cycle of national as well as international accreditation. NCAAA accredited the first group of HE institutions as well as programs in 2012. *However, the level of the impact of using QA mechanisms on organizational change and learning is still to be discovered.*

## **Purpose of the study**

This paper argues that quality systems are critical enablers for organizational learning and change, and that QA mechanisms, in particular, needs to be used in a learning organization as continuous improvement tools and as systems of thinking (Garvin, 1993). The questions addressed in this study are:

- Q1: How Saudi Universities used QA mechanisms to lead change and facilitate organizational learning?
- Q2: What are the effects of organizational cultures on these processes?
- Q3: Does the level of organizational learning relate to HEIs status and experience in accreditation processes?
- Q4: What are the factors that enhanced or hindered organizational learning within the NCAAA system?

## **Theoretical Framework**

The concepts of organizational learning and change did not emerge until the 1980s, but their background and principles can be traced back into many perspectives of management (Cook & Yanow, 2007). Garvin (1993) defines learning organization as an organization “skilled at creating, acquiring and transferring knowledge, and modifying its behavior to reflect new knowledge and insight”.

Senge (1999; 2006) stated that a learning organization is viewed as one where people continuously expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together.

The "learning organization" is defined in this study as *"the one which focuses on organizational change and "engaging employees' hearts and minds in a continuous, harmonious, productive change, designed to achieve required results that the stakeholders want" with "the capacity to shift away from views inherent in a traditional hierarchical organization, toward the ability of all employees to challenge prevailing thinking and gain a balanced perspective"*.

Some researchers think that QM, knowledge management, and organizational learning are connected and that they represent three waves of quality movement, where QM is recognized as the baseline. A conceptual framework comprising twenty eight elements is developed to map out a progressive relationship between key QM and organization learning drivers, and it was concluded that a few institutions could be recognized as a learning organization (Hafeez & Abdelmeguid, 2010).

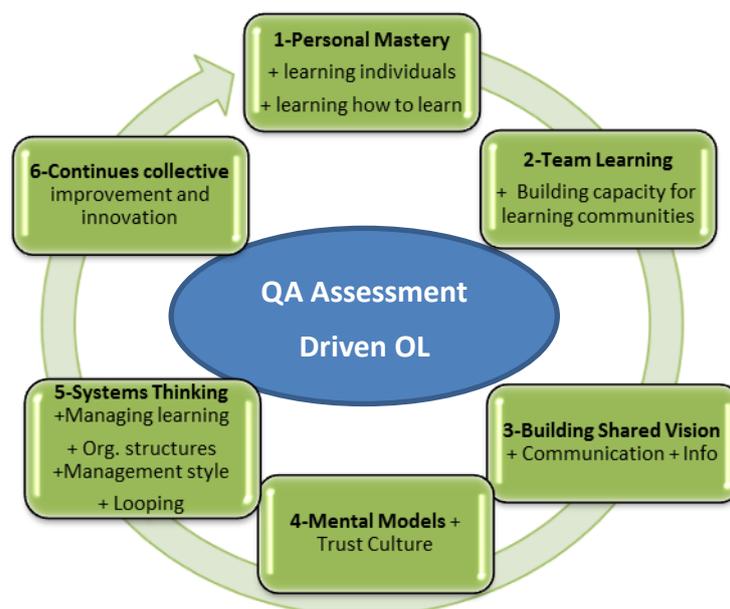
Several researchers (Zairi & Thiagarajan, 1997; Vouzas & Psychogios, 2007) indicated that QM has its “soft” and “hard” side. The “soft” side is associated with management concepts and principles such as leadership, employee empowerment and culture. The “hard” side refers to quality improvement tools and techniques.

Some of the organizational learning and change elements are embedded within QA and Quality Management (QM) framework (Chen, 2007; Scott, 2011; Hubber, 1991). They were reflected in Deming and Juran’s quality control system using quality circles, and PDSA (plan-do-study-action). Some studies have investigated the related concepts, such as Argyris and Schon’s (1978) double-loop learning, Senge’s (2006) the ‘Fifth Discipline’ and Pedler et al., (1991) learning company model.

Argyris and Schön (1978) distinguish between three levels of learning: single loop learning: *questioning how things are done*; double loop learning: *questioning underlying purposes and why things are done*; and triple loop learning: *questioning essential principles on which the organization is based, and challenging its mission, vision, market position and culture*. Double loop and Deutero learning are focused on the why and how to change the organization, while single loop learning are focused

on accepting change without questioning underlying assumptions and core beliefs.

Senge (1990; 2006) identified five characteristics of a learning organization: systems thinking, building shared vision, team learning and dialog, mental models, and personal mastery. These concept can be implemented by NCAAAA system through the processes of QA that address quality cycles and enhancement involving people at all levels with thinking that should lead to collective thinking, learning and change. Figure 1 shows the proposed model of Organizational Learning (OL) and change.



**Figure 1: Model of OL and Change**

Evaluation procedures were imbedded within the NCAAAA QA system to build capacity of assessment for improvement. They included “closing the loop” at major levels—courses, programs, colleges, and institution, and managing information systems for assessment that can monitor progress towards achieving learning outcomes for students, and building the institution, programs and units’ capacity of learning and change. It encouraged using data and reporting systems and triangulated evidence to establish a culture of data driven decisions and plans, as well as self and peer assessment and reflection methods within the system that encourage continuous improvements and institutional learning (Darandari, 2013).

Some researcher use rubrics to detail a roadmap for capacity building for institutional and individual learning (e.g., Ndirangu , 2012). From that point of view, we can develop indicators and criteria.

*Characteristics of a learning organization can be classified according to the following:*

1. Organization Structure: Flat hierarchy, decentralized, dynamic networks
2. Managers style : Facilitator, coaching style
3. Learning systems : Continual learning and double loop learning
4. Trust culture : High level of trust, Self-mastery practiced
5. Communication : Decentralized communication processes
6. Innovation : Innovation and risk taking encouraged
7. Availability of information: Systems in place to make information freely available

**Systematic cascaded and aligned assessment procedures can help people to learn by doing**, and to share lessons, tell stories, make mistakes and corrections. **Assessment** can help in **identifying leaders** at different levels and support them to create a learning culture, and help in **incorporating learning into review and evaluation processes**.

Several features are used in literature to indicate OL, such as strategies support for innovation or capability development, leadership and distributed authority norms, and belief systems; the use of whole systems planning and decision making forums, processes and tools that permit the flow or transfer of knowledge between individuals and groups, and support and legitimacy of practitioner oriented learning (Levitt & March, 1998).

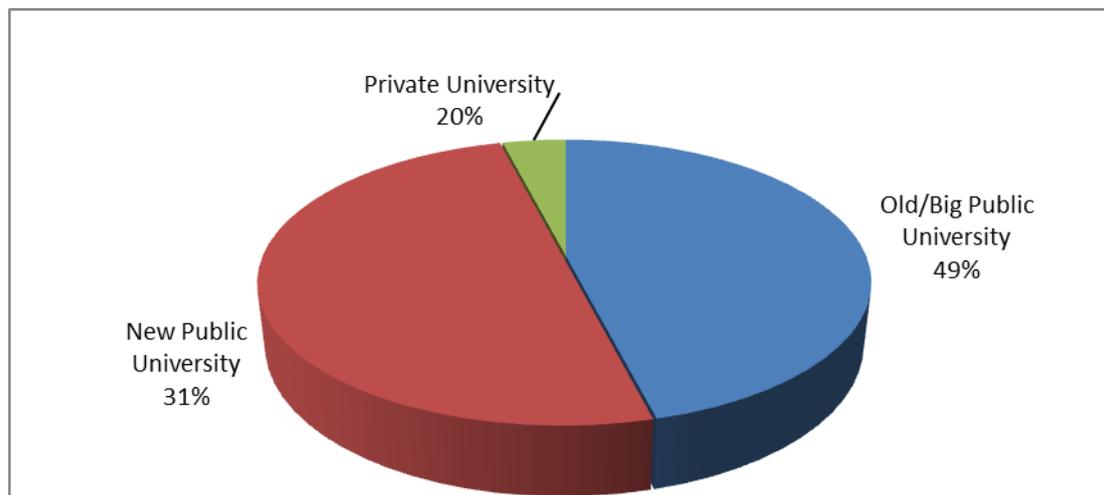
Other indicators include the following: 1) the organization has mechanisms for 'remembering' the experience of its current and previous work through the development of highly accessible databases, resource / information centers and data retrieval systems; 2) all written reports and key documents are cross-referenced and made easily accessible to all staff; 3) the organization is not vulnerable to losing its experience when individuals leave; 4) the organization has a systematic database of all its project and program work which can enable staff and 'outsiders' to identify where expertise resides; 5) the information function is given sufficient prominence and is resourced adequately to enable the organization to keep its records up to date.

## Methodology

The study used a mixed methods approach. The first one is a qualitative method that is emergent by nature, where themes become evident as the report unfolds. It is based on a case study approach with naturalistic inquiry of stakeholders, where Saudi Arabia is the focus of the study, and the Higher Education Institutions (HEIs) are the elements of the cases. The interpretations of the authors were integral to the study, as we worked in supporting many HEIs in their QA and accreditation processes, and we are involved in quality assurance and development processes in our institutions that are as well included in the study. Changes as experienced by the stakeholders were used to portray a holistic picture of the change (Lincoln and Guba, 1985; Creswell, 2003). Close and open ended question surveys were used and participants were selected purposefully from several HEIs at three levels (programs and colleges, quality deanships and centers, and higher level management) to track the patterns and the consistency of the perceptions. Interviews were also conducted on purposefully selected participants who represent HEIs that have been accredited or eligible for accreditation, who could add to the depth of understanding about organizational learning and change. In addition, extensive review of documents, observations, and informal long term contact provided data for the study. Communication pieces were collected as primary data sources regarding the implementation of the Saudi QA system. Hence, news releases, articles, internal newsletters, web pages, and archival records were reviewed. Data was analyzed and presented in terms of numbers, percentages, and patterns.

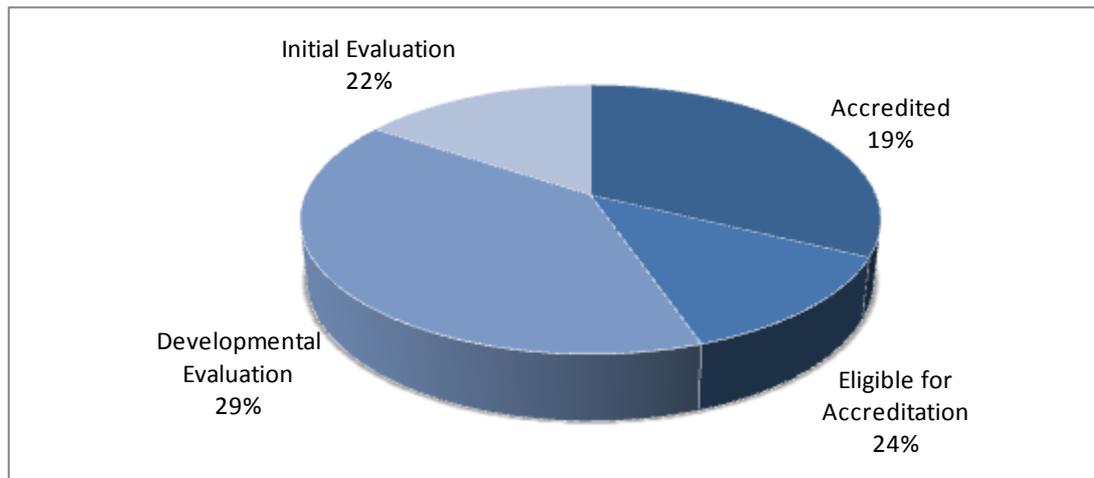
Sixty-three (63) participants responded out of 100 representing 21 HEIs out of 35 (60 %).

Figure 2 shows the types of participating institutions in surveys.



**Figure 2. Types of participating institutions in surveys**

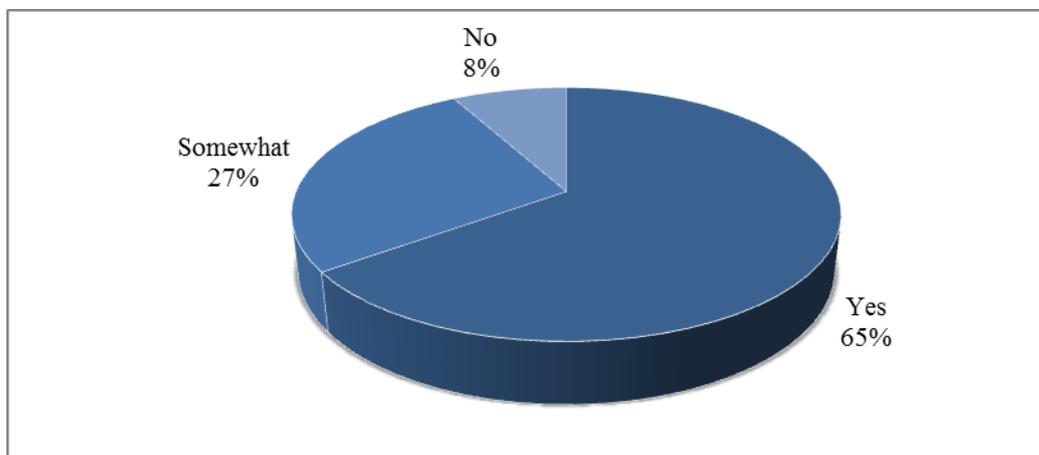
Figure 3 represents HEIs stages of accreditation. It shows that almost 20% were accredited and others had a few years of experience in this area.



**Figure 3. HEIs stages of accreditation.**

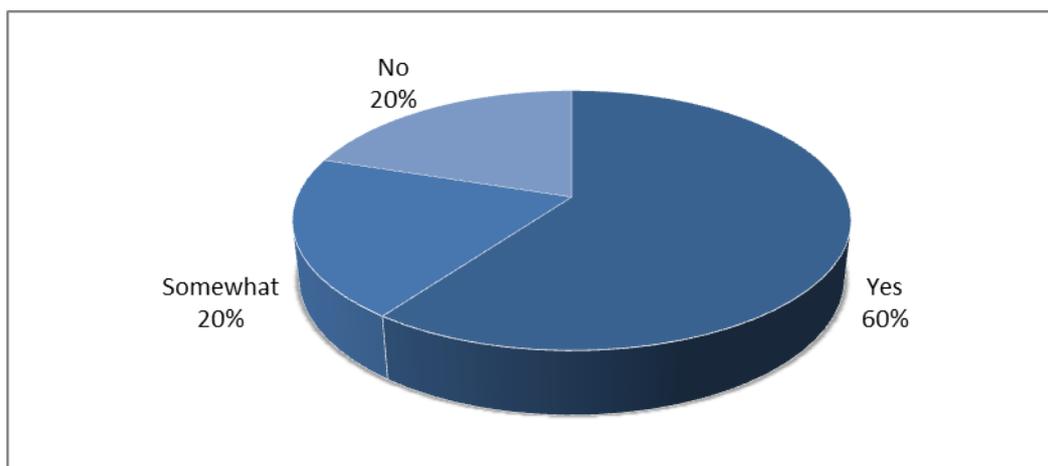
### **Results and Discussion**

In order to identify the background of participants, we reported on their experience in the area. Figure 4 shows that 65% of the participants in the survey were acquainted with Learning Organization concepts.



**Figure 4. Percentage of participants acquainted with Learning Organization Concepts.**

When asked about whether their HEI is a Learning Organization, 60% said “Yes”.



**Figure 5. Percentage of participants believed they have a Learning Organization.**

#### ***Categorizing HEIs with regards to LO characteristics and patterns***

The HEIs were classified based on patterns, and success factors were identified. They were divided into three groups based on rubric criteria that were identified as emerged from their responses on surveys and follow up interviews:

1. HE Institution with high LO characteristics and consisted patterns (green color code)
2. HE Institution with middle LO characteristics and mixed patterns (yellow color code)
3. HE Institution with low LO characteristics (orange color code).

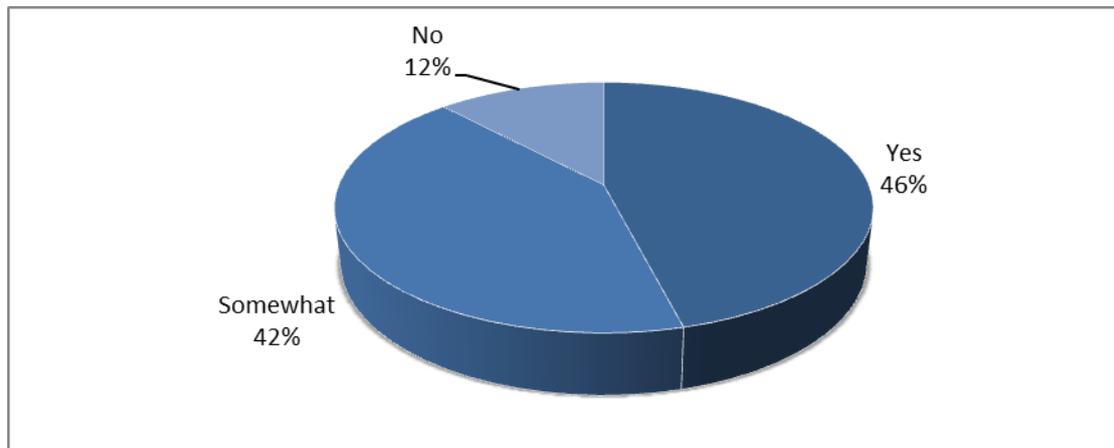
The more learning organization characteristics mentioned in each response, from several respondents at several levels, the stronger their institutions were rated from a scale of high to low learning organizations. Table 1 shows the major responses from surveys and from interviews that identified the category of the institution; where the highly learning organizations (achieving many LO characteristics ) were coded green, middle level learning organizations were coded yellow, and low level learning organizations were coded orange.

Furthermore, the patterns, regarding benefiting from QA system in encouraging LO and factors facilitating it, were followed in each category of HEIs, and results were summarized following corresponding color scheme (See Table 2-3).

**Table 1: Learning Organization (LO) Higher Education Institution Categories**

<b>Institution with Strong LO characteristics/ Consistent Patterns</b>	“The culture of quality assurance is a main reason behind most of the changes introduced within our university... Based on our report most of the departments within the institution went through major review and changes in their curriculum, actually the administration of the university paid more attention to this review and offered to support the innovative project of offering fund to all undergraduate program to re-write their curriculum based on international accreditation standards ".
<b>Institution with Middle LO characteristics/ Mixed patterns</b>	Coordination between units in the implementation of the change plans is still weak, we have efforts but they are dispersed and non-harmonious. Review and planning, and group participation is weak ... it is based on individual decisions and do not serve the reality.
<b>Institution with Weak LO characteristics/ No patterns</b>	We are hierarchic and central in decision making My university is not LO because change and planning are far from staff and their participation, the change vision is not clear and did not have a plan. Work was under way to meet the needs of temporary and emergent problems than more than on general plan and a common vision.

Participants’ answers varied when asked if HEIs benefited from the quality assurance system for Saudi Arabian universities (NCAAA) to make the university/ institution a learning organization. Forty-six (46%) said they benefited from NCAAA for LO institutions; 42% said Somewhat; and 12% said No (See Figure 6).



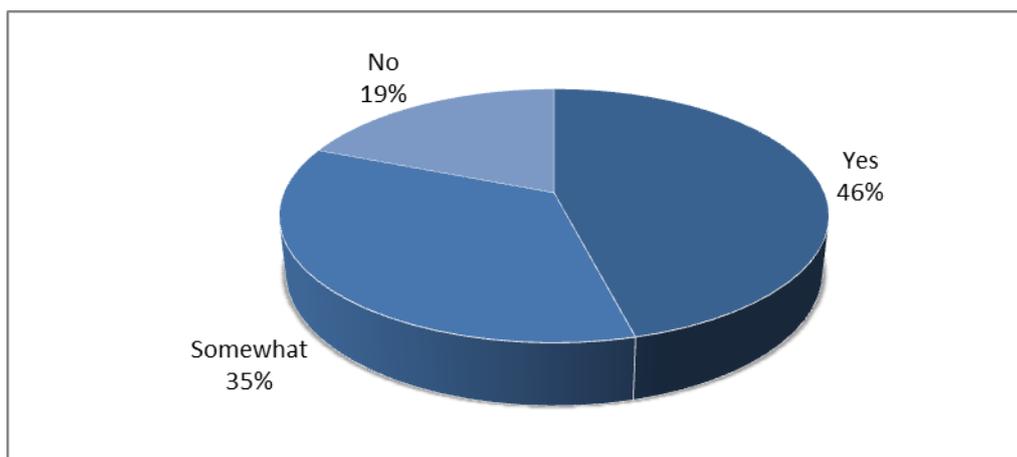
**Figure 6. Percentage of participants that benefited from the quality assurance system.**

**Table 2: HEIs patterns/ quotations based on category in response to this concern**

<b>Institution with Strong LO characteristics/ Consistent Patterns</b>	"I think with our continuous evaluation of university based on our annual evaluation and self-study.. we are becoming there ... we are re-evaluating committees and structures and relations "
<b>Institution with Middle LO characteristics/ Mixed patterns</b>	The focus is on the theoretical work and paperwork ...no motivation to improve performance.  "Our university is trying to work toward benefitting from other universities at all levels but still facing the genuine obstacles found in traditional hierarchal management model ".
<b>Institution with Weak LO characteristics/ No patterns</b>	"It is just based on individuals and their culture .. how eager is the person . .based on college. Once the person is gone things changed..."

***Barriers vs. Support factors for Learning Organizations***

Participants' responses also varied when asked if there were factors encouraging quality leaders to use Quality systems to make their HEI "a learning organization". Again, forty-six percent (46%) thought there are factors to make institutions benefit from NCAAA system for LO; 35% chose Somewhat; and 19% No (See Figure 7).



**Figure 7. Percentage of participants see factors encouraging LO. (Figure 7).**

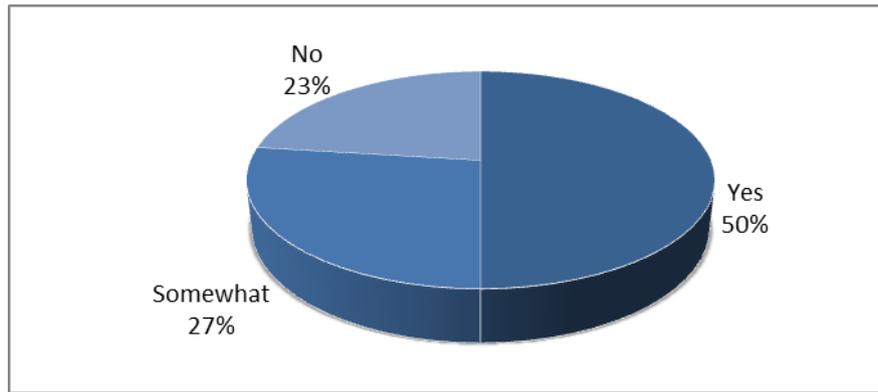
As previously mentioned, the participants responses tended to follow a pattern. When participants affirmed support for learning organizations, their responses tended to reflect many characteristics and examples supporting their responses.

For example, if an organization answers were negative (i.e., No), they tended to express features about their institutions which were dramatically opposed to characteristics typical of learning organizations. In essence, there was not predictable pattern of actions in their institutions (See Table 3).

**Table 3: Factors encouraging LO**

<b>Institution with Strong LO characteristics/ Consistent Patterns</b>	The culture of quality assurance is a main reason behind most of the changes introduced within our university. Based on our report most of the departments within the institution went through major reviews and changes in their curriculum, actually the administration of the university paid more attention to quality reviews and offered to support the innovative project of offering fund to all undergraduate program to re-write their curriculum based on international accreditation standards".
<b>Institution with Middle LO characteristics/ Mixed patterns</b>	The leadership culture and management style is not helping very much; we apply QA mechanisms but we do not have the same understanding of LO and how QA systems work, we are still far from culture or teamwork...Some believe that quality is only to obtain the certificate.
<b>Institution with Weak LO characteristics/ No patterns</b>	Does senior management have faith or real desire to shift to a learning organization and do they have a clear understanding of its meaning?? The absence of good preparation for university leaders is the problem; the absence of objective selection criteria for university leaders.

Answers to the question about barriers preventing HEIs institutions from becoming learning organizations showed that 50% thought there are barriers to make institutions benefit from NCAAA system for LO; while 27% responded Somewhat; and 23% No (See Figure 8).



**Figure 8. Percentage of participants (77%) who thought there are factors preventing LO.**

Answers to the question about factors encouraging quality leaders to use Quality systems to make university/HE institution a “ learning organization” showed that 46% thought they have strong factors to make institutions benefit from NCAAA system for LO; 35% Somewhat ; 19% No .

The **most frequently cited barriers** were: a) the culture of accreditation is number one, b) weak skills for some QA leaders and staff in LO, c) HE ministry regulations, d) organization management and committee structures, e) weak information and communication system, and f) weak sharing of skills, g) absence of good preparation for university leaders, h) members unwillingness to apply quality systems.

**The major supporting factors** included: a) the beliefs of higher management and their support for quality assurance; b) Higher management actions and understanding of the concept of quality assurance systems and how leaders think, addresses resistance, encourage team work culture; c) supportive organizational structures, d) higher management leadership knowledge, intension, style , support, and resources, e) culture of trust, f) using assessment events (at several levels/ scales) to build capacity and reflect and learn , and g) using collective actions and double looping.

**This result is supported by Senge suggestion that reflection and inquiry processes embedded in QM exercises are strongly connected, and mental models bring people to talk about their differences with reflection and conversational practices to openly share views and develop knowledge about each other’s assumptions and learn from the answers.**

***Major characteristics for HEIs with regards to LO***

The results showed that HEIs varied in their approaches using QA systems which influenced the level of OL. The following is the summary of these results

## **1. Institutions with weak LO characteristics**

Many of the institutions included in this study can be classified at this category. The culture of quality within these HEIs is very limited within faculty members and employees. There is no educational process and the self-evaluation studies revealed a lot of deficiencies. Instead of benefiting from self-study recommendations, the results were not brought to councils and there were no major announcements regarding any further actions. There was no clear dialogue, system thinking, mental models, nor *questioning underlying purposes and why things are done* regarding QA system. They did not seem to use full loops, and some used just single loops.

The focus is more on implementing QA tools. In general, they did not seem to merge Quality systems in their work and decisions. Participants indicated that it is about filling out forms and not motivating members to improve performance. As one participant described it: *“We start to apply the forms of (NCAAA) in programs, but we still far away from a learning organization.”*

This seems not to be connected to the years of experience the HI has working on quality systems nor with eligibility for accreditation, or the size of institution, but it seems connected with the knowledge and skills of quality and institution leaders regarding QA system and how it can be connected and used for OL. These institutions tended to be dealing with several barriers which were related to their challenges with applying QA for accreditation purposes. The absence of good preparation for university leaders; absence of objective selection criteria for university leaders were common critiques from participants. When participants were asked to provide any comments related to the survey's topics, she questioned the following: *“Does senior management have faith or real desire to shift to a learning organization and do they have before it a clear understanding of its meaning?”*

## **2. Institutions with middle LO characteristics**

The culture of quality in these HEIs is within some departments or units but it is not consistent across institution. There is a limited educational process for people who work closely to conduct quality requirements, and the self-evaluation studies revealed deficiencies regarding consistency issues. The results were brought usually to councils but some announcements were made regarding major actions. There is mastery and dialogue to some level. System thinking and mental models were used for some planning purposes in identified events but no deep *questioning about underlying purposes and why things are done* regarding QA system. They also seem to use single loops. These institutions had a number of executive leaders who have a good knowledge related to OL and have gone through some implementations for quality systems and self-evaluation studies. Many large or spread institutions

tended to have these mixed patterns and inconsistency in using QA mechanisms to advance OL.

The focus is still on implementing tools at the higher levels in institution, however some leaders at middle level are pushing towards OL. They need the support and believes of the higher management and more understanding of the concepts of QA systems, and more supportive structure. As one participant described it: “*we apply QA mechanisms but we do not have the same understanding of LO and how QA systems work, we are still far from culture or teamwork...Some believe that quality is only to obtain the certificate.*”

### **3. Institutions with strong LO characteristics**

Just a small number of institutions included in this study can be classified as having high level of LO characteristics, but not necessarily strong. The culture of quality is high within faculty members and employees. They seem to promote a culture of quality and teamwork; encourage participation in the self-study; encourage participation in the institution's strategic planning and colleges. They focus on performance improvement as well as on paperwork required, even though it was the first cycle for them in implementing QA systems and getting prepared for accreditation.

In general, there is high educational process and the self-evaluation studies revealed just operational deficiencies. The recommendations were brought to councils and any further actions were announced. Events were used to share and continue dialogues. They tend to be with manageable size and have gone through all QA system building and accreditation stages. There was some use of why and how to change the organization questions, using double loops at some levels.

These institutions seem to have strong leadership at the top who value change and had the skills to make it, with leaders at second levels of the institution knowledgeable about NCAAA QA system and mechanisms and processes, with some knowledge about LO framework; although, they did not seem to connect the two very well. They also *seem to focus on students and on making changes that improve their learning outcomes at the end, with strong collaboration values. They tended to have quality leaders with open learning styles* who managed to distribute “trust culture”.

They have consistent patterns to some level of strong communications, documentation, sharing, team work and learning, and system thinking that were enforced and became part of the culture. As one quality director described it: “The culture of quality assurance is a main reason behind most of the changes introduced within our university... Based on our report most of the departments within the institution went through major review and changes in their curriculum... actually the

administration of the university paid more attention to this review and offered to support the innovative project \offering funds to all undergraduate program to re-write their curriculum based on international accreditation standards".

Major success factors for HEIs who were classified as Learning Organizations had the following features:

- Strong leadership knowledge at higher level.
- QA leaders' knowledge and skills with open learning styles.
- Culture of trust
- Using assessment events (at several levels/ scales) to build capacity, to reflect and learn , and to take collective actions using double looping.
- Higher management understands the concepts of quality assurance systems.
- Believes of higher management to provide full support for quality assurance and changes that benefit students.
- Higher management understands how leaders think, address resistance, and encourage team work culture.

These results support that organizational Learning can be enhanced through QA mechanism. As Argyris (1999) indicated that double-loop learning is about solving difficult problems, which allows us to see more clearly the causal processes embedded in those claims. It depends on commitment by employees to seek truth, transparency, and personal responsibility. In Single-loop learning, people are programmed to believe that transparency and truth are good ideas, but only when they're not threatening or embarrassing. The results also support 'learning disabilities' associated with the failure to think systemically provide by Senge (2006). These were apparent through some patterns in some institutions. As a member of staff said "there are many barriers.. the only way to change people is through education from the bottom –up".

**Result came also in accordance of Senge (2011) argument about faculty and administrators and that they must develop the capacity to learn. Real improvement will occur only if people responsible for implementation design the change itself. Successful change requires multiple layers of leadership roles. The term he coined "*the Iceberg*" to indicate that events are usually symptoms of something bigger and real change is found beneath the surface focusing on specific events. The tip of the iceberg may prevent from seeing the complexity of organization. This indicates the processes that should be taken to address in order to use QA mechanisms in system thinking.**

**There is a need for a call for more emphasis on LO issues, with examples of good practices. The purposes of OL need to clear, connected but separate form QA purposes.**

Langford and Cleary (1995) statement supports this conclusion: “a system without a clear purpose moves in sometimes contradictory directions...unlike a system whose sense of purpose keeps it moving toward the same common path (p. 31 ). A participant stated that “*NCAAA needs to work on top managements, presidents and vice presidents to, convince them to highly prioritize quality. This would make things run more smoothly. .if top management, does not have buy, then it makes it very difficult*”.

### **Conclusions and Suggestions**

The study presents how the national quality assurance system was used in HEIs to lead change and organizational learning in Saudi Arabia. Based on the results regarding their characteristics dealing with OL issues using QA context, they were categorized into three levels ranging from Low to high. A few were classified as having high OL. Other results showed that:

- Saudi HEIs used QA mechanisms to lead change and facilitate organizational learning, however this varied among them based on the institution higher management interpretation of the system and the support of quality directors. It is very important that leaders at the top and second levels be clear about the purposes for QA processes and mechanisms and how they can be connected and used to enhance OL processes.
- Organizational as well as society cultures affected strongly the processes positively or negatively. Institutions with high LO characteristics had a culture with collaborative values, trust, and sharing. More work need to be done to improve and monitor the cultures of institutions.
- It is necessary that organizational learning happen at all levels, and experience in accreditation processes may support partially being LO.
- A major barrier hindered some HEIs from enhancing organizational learning within the NCAAA system is lacking the experience and understanding of the total framework of LO and how it relates to NCAAA system.

The researchers suggest the following:

- **HEIs need to be moving to system thinking using** mental models, **where people do not deal with isolated events but interconnected events that may be widely separated in time and space and to gain deeper insights into the structures and underlying challenges.**
- Develop leadership skills for top management as well as quality leaders regarding LO approaches and their connections with quality mechanisms and tools.

- Establish and connect IT communication systems, building knowledge management.
- Increase representation and group reflection, and streamline decision-making across all HEI levels of looping.
- **Quality assurance authorities need to assist HEIs to make the most of QA system by differentiating between using the QA tools vs. the system, concepts and thinking models behind it that can increase OL.**
- Rubrics may be used to assign expectations and detail practices that can help HEIs in implementing change.
- Encourage HEIs to design theory of change through Q systems and align structure with theory, and to use assessment events (at several levels / scales) to build capacity and to reflect and learn and take collective actions.

Finally, through annual assessments on related standards, HEIs should highly consider the characteristics of learning organizations in order to maximize the potential benefits. Consequently, during their respective reviews, they will not only demonstrate competency, but also teamwork which is essential to any type of rapidly growing institutions, engaging in knowledge management, and utilizing best practices found in learning organizations.

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