

# Learning Design for: Quality Assurance

## Context

**Topic:** Quality Improvement plan(QIP)-Key performance indicators(KPI)

**Total learning time:** 3 hours

**Designed learning time:** 3 hours

**Size of class:** 20 students

**Description:** This course aims to introduce the concept of quality assurance and its application in pharmaceutical companies at different levels, explain the basic concepts of quality improvement approach, accreditation process, ISO certification, audit system and risk management framework in the pharmaceutical field

Mode of delivery: Blended

## Aims

After completing this module, the student should be able to:

- Gain a deeper understanding of Quality Management System(QMS) structure, processes (Quality improvement plan(QIP)), and outcomes (Key performance indicators(KPI))
- Introduce the concept of quality improvement process in the pharmaceutical field
- Explain the essential elements of quality improvement and apply them to pharmaceutical industries and companies
- Identify and implement the different phases of quality improvement framework in the pharmaceutical field

## Outcomes( Application the ABC LD)

### *Knowledge*

- Know basic foundations of quality improvement process
- State the various phases of QIP Specify the different types of KPIs
- Know how to select a targeted KPI to measure the improvement process of a specific objective

### *Comprehension*

- Describe the reasons for improvement in a pharmaceutical company/industry/community pharmacy

- Formulate the required key factors to determine the scope of improvement
- Identify the targeted KPIs related to the scope of improvement

### ***Application***

- Apply the different phases required to prepare an effective QIP Predict the objectives required to be improved
- Select the targeted KPIs according to these improved objectives
- Prepare the corrective and preventive actions (CAPA)

### ***Analysis***

- Differentiate between the various types of selected KPIs
- Analyze the selected KPIs and related them to the QIP

### ***Synthesis***

- Develop a QIP for a pharmaceutical company
- Organize the time line, responsibility and resources for the developed CAPA

### ***Evaluation***

Evaluate the analysis results of the KPIs to measure the level of achievement for improved objectives

## **Teaching-Learning activities(TLA)**

### ***Preparation of KPIs and QIP***

<i>Read Watch Listen</i>	<i>40 minutes</i>	<i>20 Students</i>	<i>Teacher not present</i>	<i>Online</i>
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### **Pre-class activity:**

The students will understand the various phases needed to prepare a QIP and how to select targeted KPIs for a pharmaceutical company. Ask students to read the attached article, watch the attached video and search other articles through google scholar regarding the process of quality improvement in the Lebanese and European pharmaceutical companies to acquire knowledge and practical skills in this regard.

### ***Linked resources***

🔗 [Key Performance Indicators \(KPIs\) with examples](#)

<i>Collaborate</i>	<i>40 minutes</i>	<i>20 Students</i>	<i>Teacher present</i>	<i>Face to face (not online)</i>
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**During the Class:**

Divide the class into 5 groups/4 students per group and ask them to make brainstorming (*15 min*) to identify the required steps to develop a QIP for a pharmaceutical company. Assign a facilitator to gather and manage their ideas to summarize the frame for effective development of QIP for a pharmaceutical company (*10 min*).

**Team Activity:**

Ask each group to propose an improved objective and select a KPI /its frequency of data collection and analysis, the responsibility for following it and the proposed actions to be implemented (*15 min*).

<i>Discuss</i>	<i>20 minutes</i>	<i>20 Students</i>	<i>Teacher present</i>	<i>Online</i>
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**After the class:**

Ask students to join the lecturer through a zoom meeting, divide them into 5 chat rooms to share and discuss together the selected KPIs and then summarize them on a Padlet.

<i>Investigate</i>	<i>30 minutes</i>	<i>20 Students</i>	<i>Teacher present</i>	<i>Face to face (not online)</i>
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**During the class:**

Support the students to investigate the key factors that should take into consideration when selecting measurable KPIs in order to track effectively the implementation of the targeted objectives taking as example KPIs for a Lebanese pharmaceutical company. Prepare a Kahoot (game-based learning platform) entitled “Development measurable KPIs” to get

feedback from the students on their learning outcomes on these key factors  
Read and communicate the results of their information to conclude these key factors

*Linked resources*

📌 Note: Prepared list for X pharmaceutical company

<i>Practice</i>	<i>30 minutes</i>	<i>20 Students</i>	<i>Teacher not present</i>	<i>Online</i>
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**After the class:**

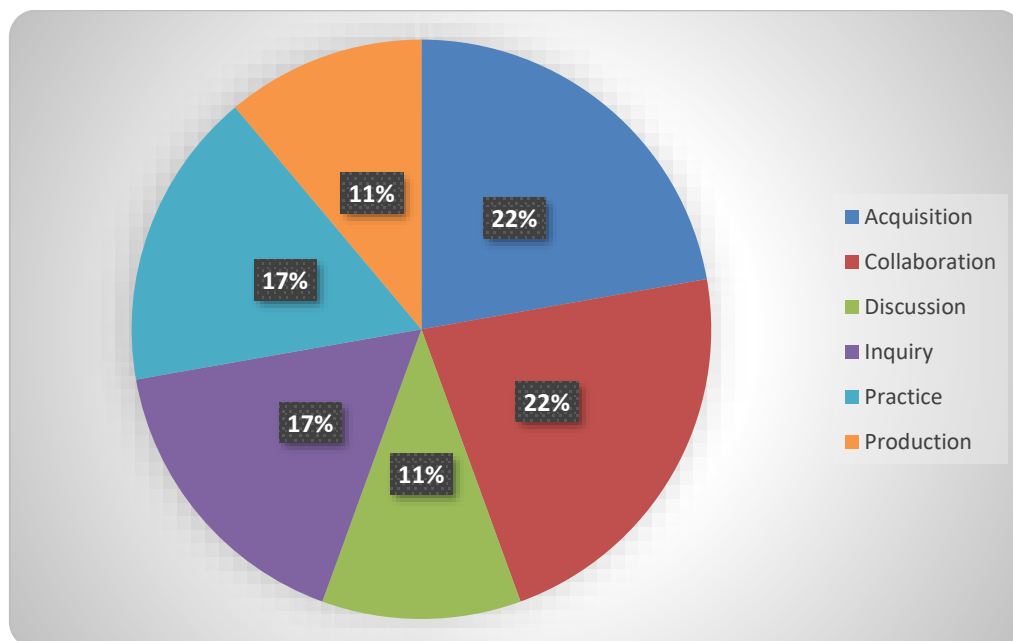
Ask students to join together the Microsoft team to develop a model QIP for a Lebanese pharmaceutical company taking into account the proposed CAPA for the selected KPIs and assign its target ratio, frequency of data collection/analysis, and the responsibility to follow these KPIs

<i>Produce</i>	<i>20 minutes</i>	<i>Students</i>	<i>Teacher present</i>	<i>Face to face (not online)</i>
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**After the class:**

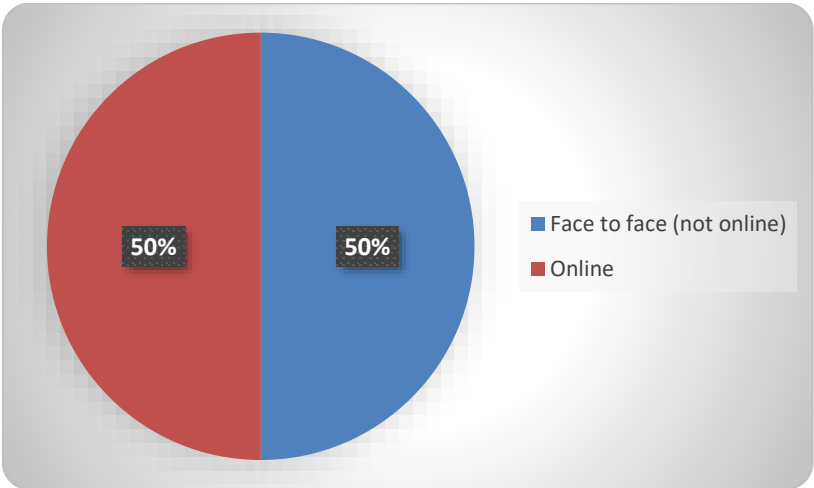
At the end of this module, an assignment will give for each group ( 5 students) aiming to select a medicinal line in a Lebanese pharmaceutical company and prepare its QIP with 3 KPIs. Students will share this model QIP and share the learning outcomes of this module through a padlet. An essay as a model of a QIP for a Lebanese pharmaceutical company will prepare to evaluate the acquired practical skills and knowledge(This assignment will be counted as 10% of the grade).

## Representations of the learning experience

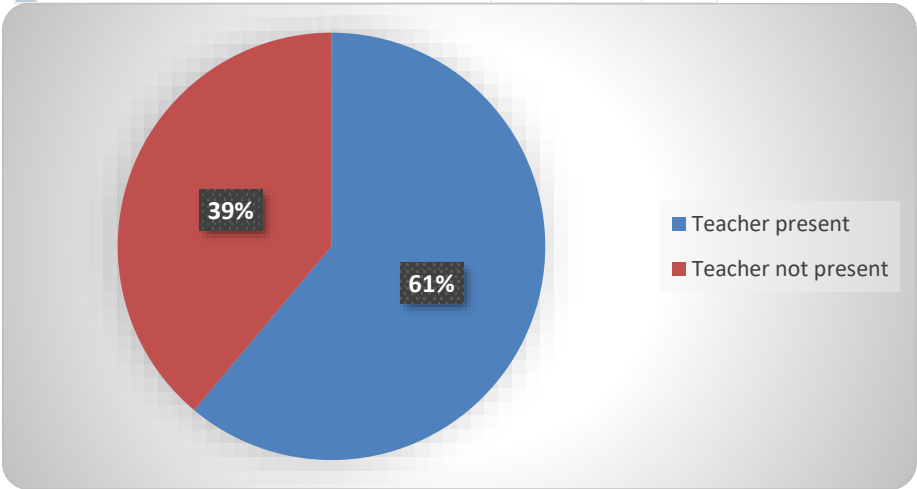


Learning through	minutes	%
Acquisition (Read, Watch, Listen)	40	22
Investigation	30	17
Discussion	20	11
Practice	30	17
Collaboration	40	22
Production	20	11

	minutes	%
Whole class	0	0
Group	160	100
Individual	0	0



	minutes	%
Face to face (not online)	90	50
Online	90	50



	minutes	%
Teacher present	110	61
Teacher not present	70	39