



آغا خان یونیورسٹی ایگزامینیشن بورڈ

AGA KHAN UNIVERSITY EXAMINATION BOARD



**NEQMAP**  
Network on Education Quality  
Monitoring in the Asia-Pacific



**unesco**

**2023 NEQMAP Webinar Consultation**

Integrating 21<sup>st</sup> century skills in teaching and learning  
policies and practices

## EMPOWERING SCHOOL PRACTITIONERS

### PBL Approach for Assessing 21<sup>st</sup> Century Skills in the context of Pakistan

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# Who We Are?

Aga Khan University Examination Board (AKU-EB)

An awarding body and mandated to work in the development and implementation of K-12 system to introduce:



Fair and transparent system



Promote conceptual learning



Quality of assessment



Improve classroom teaching



# Missing Pieces of the Puzzle

CURRICULUM =

Cognition

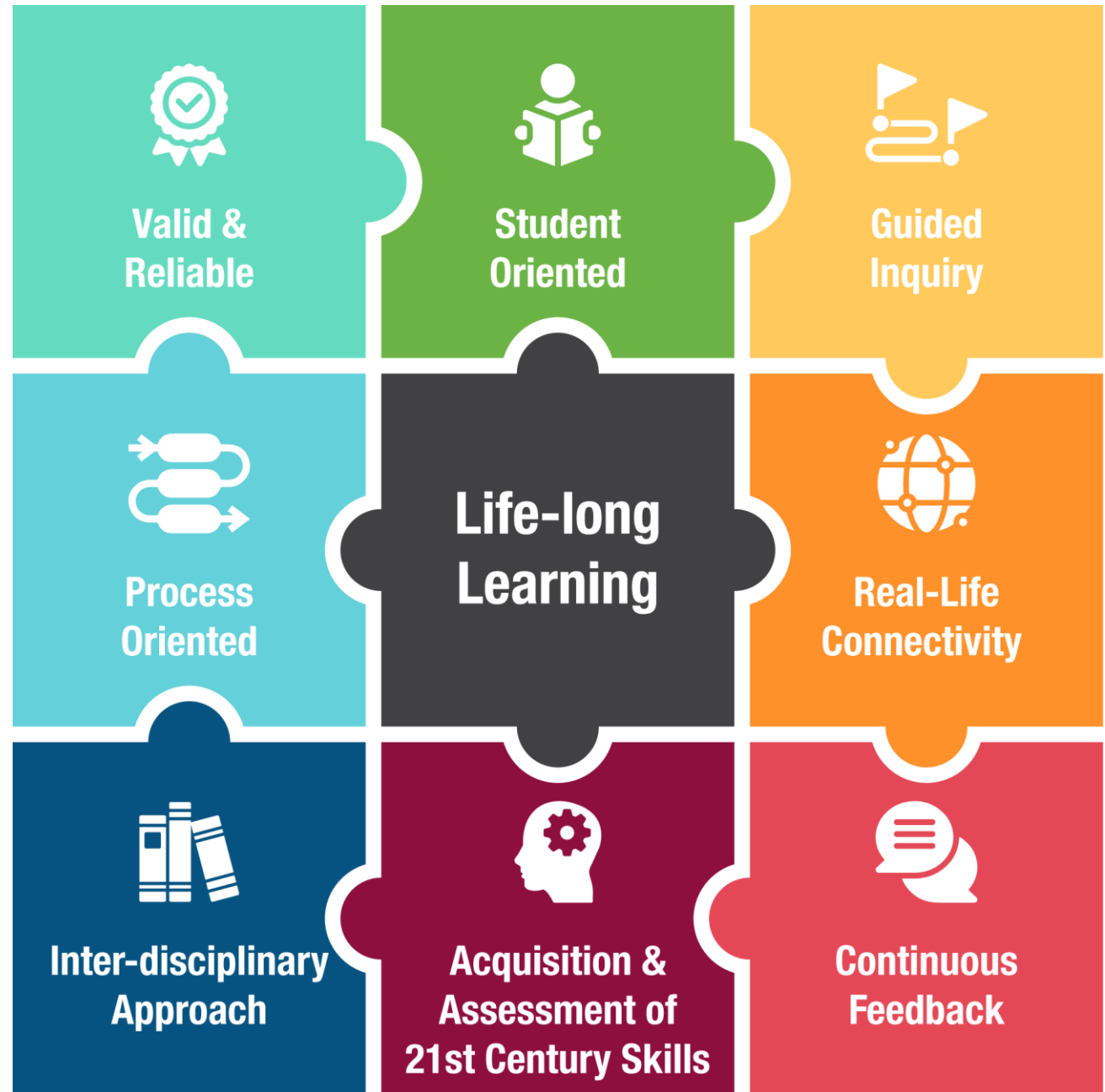
Psychomotor

Affective

Focuses only on assessment of knowledge acquisition. A significant part of curriculum is missing in terms of classroom teaching, learning and assessment.

**Project-Based Learning (PBL)**

# AKU-EB Project-Based Learning (PBL) Framework





- Trans-provincial curricula
- UN Sustainable Development Goal 4
- **Standardised Rubric**



- Decision making
- Scaffolding
- Integrated learning
- Learning by doing
- Teacher as facilitator



- Skill performance
- Learning oriented
- Self-reflection
- Trial and error element
- Constant cognitive stimulation



- Learning goals
- Content questions
- Step by step instructions
- Teacher guide
- Command words



- Consist of two or more than two subjects
- (STEM, STEAM, FAME)



- Contextual and community oriented
- Application of knowledge
- National needs (global citizenship, entrepreneurship, ethics and pluralism, mental health and resilience)



- Information gathering
- Listens, reads, views
- Communication skills
- Interpersonal skills
- Team work
- Responsibility
- Problem solving/ critical thinking
- Creativity and innovation



- Self-assessment
- Peer assessment
- Rubric assessment
- In-project group discussions



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# Translating Framework into Project Development



Creating Multiple Opportunities to Demonstrate 21st Century Skills

## Driving Question

How should I plan a trip to Norway?



### Task

You are group of tour guides which have been requested by a family with six members to arrange a week-long trip to Norway. In this regard, you will first research about the country and then prepare an itinerary and financial budget for the tour. Lastly, you will prepare a travel guide for the family that gives comprehensive information about the country, commonly used language, budget expense and itinerary. Remember: Tourist guides that can share additional information about the tourist country along with the brief comparison with their native country are always preferred most!

## Presentation

Travel Guide

## What will I Learn (Learning Goals)?

At the end of the project, students should be able to

1. locate Norway and its capital city on the world map.
2. explore distinct geographical facts of Norway.
3. prepare an itinerary for a trip to Norway.
4. prepare an expense budget sheet for travelling to Norway.
5. compare and contrast Norwegian culture with Pakistani culture.



## Method

### Stage I: Geography of Norway

1. **Form** a group of 4 to 5 members with the help of your teacher.
2. On the world map, **identify** the location of Norway and **locate** its capital city.  
Point to Ponder: What advantages can Norway enjoy based on its location?
3. A basic requirement of foreign travel is visa of that country. **Research** about the importance of visa, visa requirements to travel to Norway and visa application process. **Prepare** a flowchart to depict the collected information.
4. **Explore** different airline options for travelling to Norway and **complete** Table 1. **Choose** the BEST option from all the possibilities.

Table 1

Mode of Transport	Route	Options (Available Airlines)	Approximate Time to Travel	Cost of Travel
Air				

Point to Ponder: Can you think of different routes to travel to Norway by roadways or waterways with the help of the map (used in Step 2)?



# Multiple Tools for Assessment


**Middle School Programme – Competency Assessment Rubric**

Class: \_\_\_\_\_

	1	2	3	4	5	6	7
<b>Competencies</b>							
1- Information Gathering	Needs help to find facts, data and evidences.		Is able to find some relevant facts, data and evidences from limited sources.		Finds most relevant facts, data and evidences from multiple sources.		Finds all relevant facts, data and evidences from multiple sources and prior experience.
2- Communication Skills	Unacceptable structure, grammar and use of words. Message is unclear. Unacceptable pace, volume and expression (verbal).		Just acceptable structure, grammar and use of words. Message lacks some clarity. Just acceptable pace, volume and expression (verbal).		Appropriate structure, grammar and use of words. Message is clear. Appropriate pace, volume and expression (verbal).		Appropriate structure, grammar use and choice of words. Message is clear and concise. Appropriate pace, volume and expression (verbal).
3- Listens, Reads, Views.	Comprehends a few of the key points, however, is unable to summarize them.		Comprehends a few key points and is able to summarize them. Needs assistance in identifying the implied (hidden) message.		Comprehends most of the message and is able to summarize it. Is able to identify the implied (hidden) message. Distinguishes some facts from opinions.		Completely comprehends the message and is able to summarize it. Is able to identify and understand the implied (hidden) messages. Distinguishes all facts from opinions.
4. Team work	Minimal contribution to teamwork. Has difficulty being supportive and respectful of others.		Some contribution to teamwork. Has some difficulty being supportive and respectful of others.		Positive contribution to teamwork. Respectful and supportive of others.		Positive and effective contribution to teamwork. Motivated, respectful and supportive of others.
5. Interpersonal Skills	Sometimes interacts in a friendly manner. Rarely listens and shows respect for other's ideas.		Usually interacts in a friendly manner. Occasionally listens and responds respectfully to other's ideas.		Always interacts in a friendly manner. Usually listens and responds respectfully to other's ideas.		Always interacts in a friendly manner. Always listens to other's view points and responds respectfully. Is always approachable.
6. Responsibility	Occasionally punctual, prepared, and organized. Needs constant reminders to complete the assigned tasks.		Usually punctual, prepared, and organized. Needs some reminders to complete the assigned tasks.		Always punctual. Mostly prepared and organized. Sometimes takes initiatives to complete the assigned tasks.		Always punctual, prepared and organized. Always takes initiatives to complete the assigned tasks.
7. Problem Solving / Critical Thinking	Always needs help to think through a problem and offer appropriate solutions. Always needs support to analyze the main issue.		Needs help to think through a problem. Sometimes offers appropriate solutions. Sometimes analyzes the main issue.		Is able to correctly think through a problem. Usually offers appropriate solutions. Analyzes the main issue and can identify some of its reasons / effects.		Is able to correctly think through a problem. Offers (multiple) appropriate solutions. Analyzes the main issue and can identify most of its reasons / effects.
8. Creativity and Innovation	Work is original. Needs help in creative design.		Work is original. Needs some help in creative design. Is sometimes able to independently produce new ideas / solutions.		Work is original. Work is independently creative in design. Is usually able to independently produce new and well developed ideas / solutions.		Work is original. Work is independently creative in design. Is always able to independently produce new and well developed ideas / solutions.

## Project Self-Assessment

Project 1: Matter Matters **14**



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**Project Self-Assessment**

My Name: \_\_\_\_\_  
Grade: \_\_\_\_\_ Section: \_\_\_\_\_

Rate your performance on the project. How well did I.

S. No.	Competencies	☹️	😞	😊	😄
1.	Gather information.				
2.	Understand the oral messages and respond appropriately.				
3.	Understand the written messages and express (through words and expressions) appropriately.				
4.	Participate effectively in teamwork.				
5.	Take initiatives and complete the work on time.				
6.	Give new ideas and solve problems.				
7.	Do the task again to improve it (try again).				


Reflection

What Did I Do Well?	What Was Difficult For Me?	What I Would Like To Do Better?

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## Project Peer-Assessment

Project 1: Matter Matters **15**



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**Project Peer-Assessment**

My Name: \_\_\_\_\_  
Grade: \_\_\_\_\_ Section: \_\_\_\_\_  
My Peer's Name: \_\_\_\_\_

Rate the performance of your peer in the project. How well did s/he..

S. No.	Competencies	☹️	😞	😊	😄
1.	Gather information.				
2.	Understand the messages (oral) and respond appropriately.				
3.	Understand the written messages and express (through words and expressions) appropriately.				
4.	Participate effectively in teamwork.				
5.	Take initiatives and complete the work on time.				
6.	Give new ideas and solve problems.				
7.	Do the task again to improve it.				

What I Liked Most About My Peer?	How Can My Peer Do Better?

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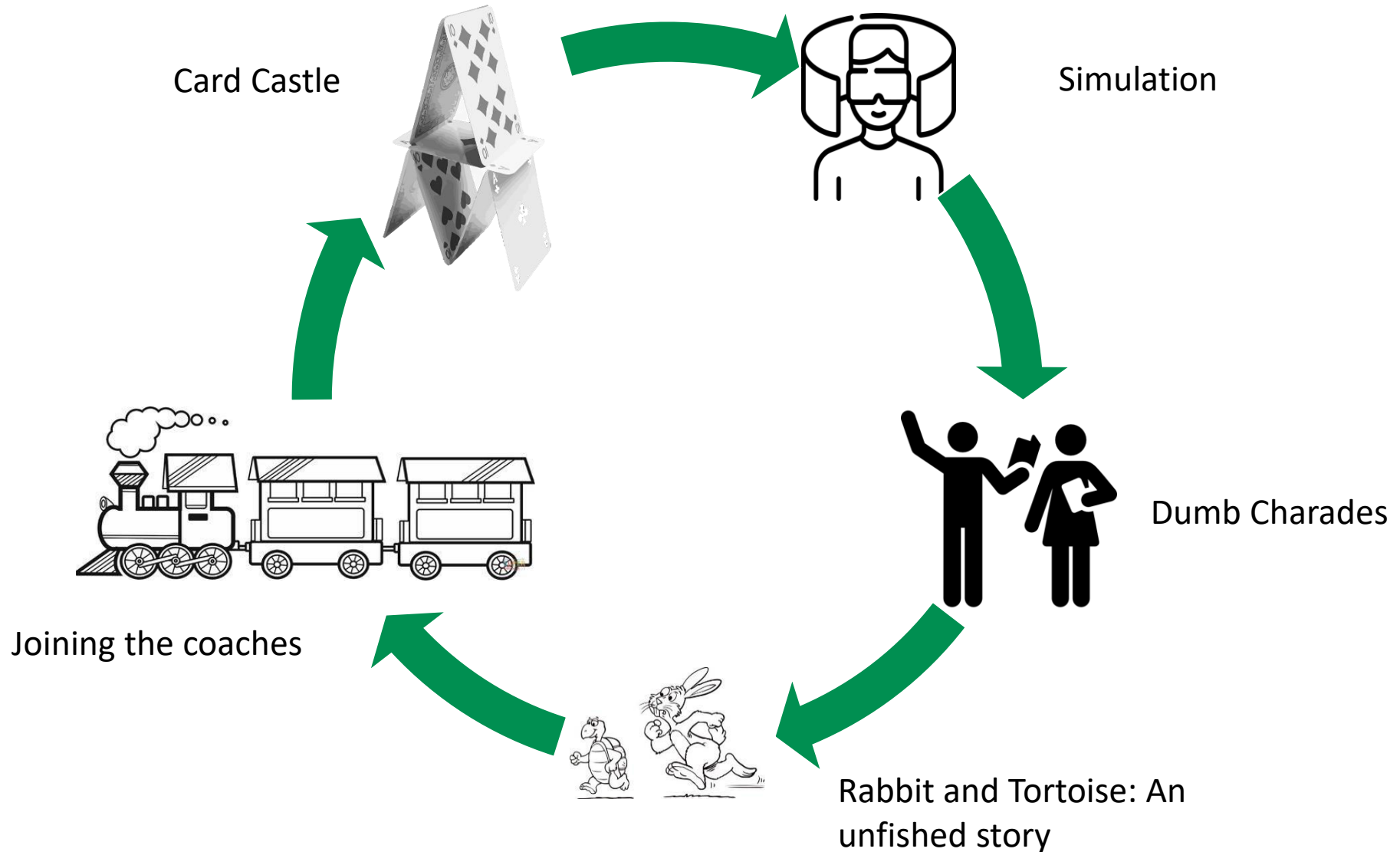
# Multiple Tools for Assessment

## Middle School Programme – Competency Assessment Rubric

Class: \_\_\_\_\_

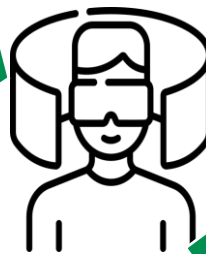
	1	2	3	4	5	6	7
<b>Competencies</b>							
<b>1- Information Gathering</b>	Needs help to find facts, data and evidences. <input type="radio"/>	<input type="radio"/>	Is able to find some relevant facts, data and evidences from limited sources. <input type="radio"/>	<input type="radio"/>	Finds most relevant facts, data and evidences from multiple sources. <input type="radio"/>	<input type="radio"/>	Finds all relevant facts, data and evidences from multiple sources and prior experience. <input type="radio"/>
<b>2- Communication Skills</b>	Unacceptable structure, grammar and use of words. Message is unclear. Unacceptable pace, volume and expression (verbal). <input type="radio"/>	<input type="radio"/>	Just acceptable structure, grammar and use of words. Message lacks some clarity. Just acceptable pace, volume and expression (verbal). <input type="radio"/>	<input type="radio"/>	Appropriate structure, grammar and use of words. Message is clear. Appropriate pace, volume and expression (verbal). <input type="radio"/>	<input type="radio"/>	Appropriate structure, grammar; use and choice of words. Message is clear and concise. Appropriate pace, volume and expression (verbal). <input type="radio"/>
<b>3- Listens, Reads, Views.</b>	Comprehends a few of the key points, however, is unable to summarize them. <input type="radio"/>	<input type="radio"/>	Comprehends a few key points and is able to summarize them. Needs assistance in identifying the implied (hidden) message. <input type="radio"/>	<input type="radio"/>	Comprehends most of the message and is able to summarize it. Is able to identify the implied (hidden) message. Distinguishes some facts from opinions. <input type="radio"/>	<input type="radio"/>	Completely comprehends the message and is able to summarize it. Is able to identify and understand the implied (hidden) messages. Distinguishes all facts from opinions. <input type="radio"/>

# Assessing 21<sup>st</sup> Century Skills



# Assessing 21<sup>st</sup> Century Skills

Team Work  
Assessing Oneself and Others

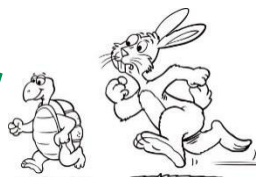


Real Life Connection:  
Overcoming Bias

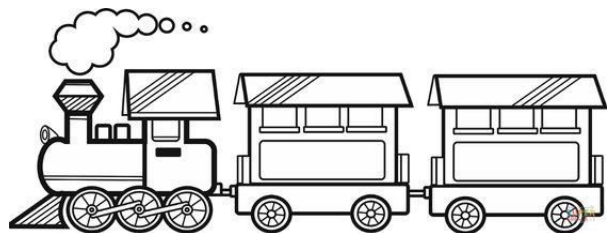


Non-Verbal Ques-  
Effective observation

Creativity and Innovations

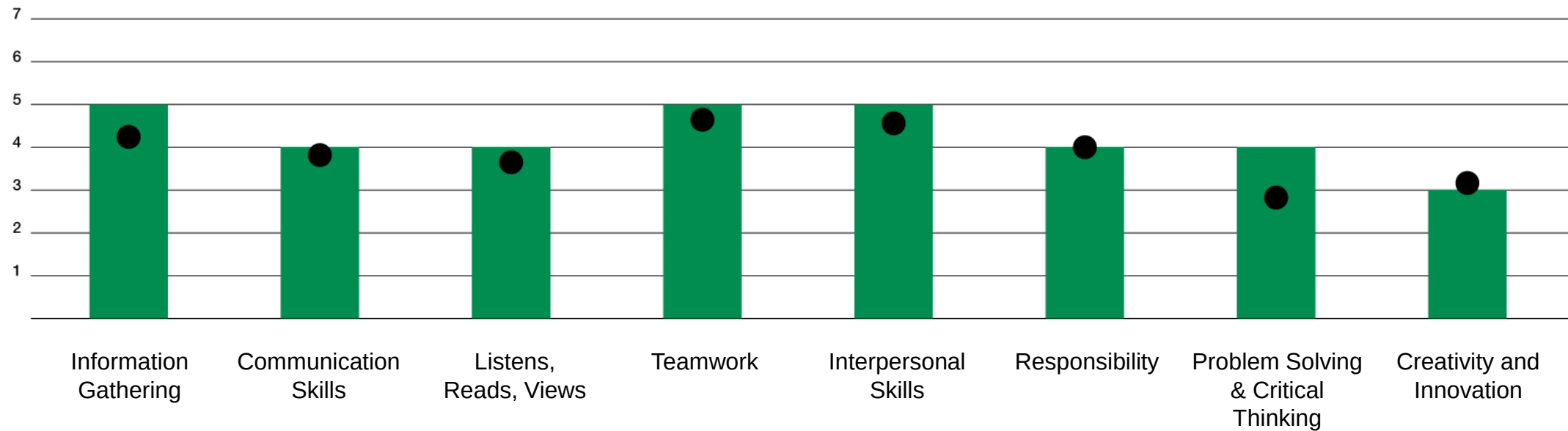


Administratively  
Effective



# Project-Based Learning: Reporting

## Project Competency Assessment\*



*\*Each competency assessed is essential and should be considered independently for student's personal development.*

■ Student Score  
● Class Norm

# Project-Based Learning: Feedback

Competency Assessment and Comments	
<p><b>Successful Completion of the Project</b></p> <p>The project contains all requirements and most process documents.</p>	<p><b>Teamwork</b></p> <p>Positive and effective contribution to teamwork. Respectful and supportive of others.</p>
<p><b>Understanding of the Concepts</b></p> <p>The student has demonstrated an in-depth understanding of all concepts and applied most of them appropriately.</p>	<p><b>Interpersonal Skills</b></p> <p>Always interacts in a friendly manner. Always listens to other's view points and responds respectfully. Is often approachable.</p>
<p><b>Information Gathering</b></p> <p>Finds all relevant facts, data and evidences from multiple sources.</p>	<p><b>Responsibility</b></p> <p>Always punctual, prepared and organized. Often takes initiatives to complete the assigned tasks.</p>
<p><b>Communication Skills</b></p> <p>Appropriate structure, grammar and use of words. Message is clear and concise. Appropriate pace, volume and expression.</p>	<p><b>Problem Solving / Critical Thinking</b></p> <p>Is able to correctly think through a problem. Offers (multiple) appropriate solutions. Analyzes the main issue and can identify some of its reasons/ effects.</p>
<p><b>Listens, Reads, Views</b></p> <p>Completely comprehends the message and is able to summarize it. Is able to identify the implied (hidden) message. Distinguishes some facts from opinions.</p>	<p><b>Creativity and Innovation</b></p> <p>Work is original. Work is independently creative in design. Is always able to independently produce new and, usually, well-developed ideas/ solutions.</p>

## Teamwork

Positive and effective contribution to teamwork. Respectful and supportive of others.

## Problem Solving & Critical Thinking

Is able to correctly think through a problem. Offers appropriate solutions. Analyses the main issue and can identify some of its reasons/ effects.

## Creativity & Innovation

Work is original. Work is independently creative in design. Always able to produce new solutions.

# Empowered- Teachers



School Based  
Assessment



Capacity  
Development



Engaging  
Classrooms

# Moving Forward



## Primary Level (Grades 4-5)

- Demand for structured program to build strong foundation for Primary Students



## Secondary and Higher Secondary Levels (Grades 9-12)

- Authentic assessment by adding value to continuous assessment in high-stakes
- Replacing traditional Science Practical approach with PBL





Thank You!

*Picture courtesy: Shahid Afridi Foundation*