ANUGERAH KHAS
YB MENTERI PENDIDIKAN
TINGGI :
REKABENTUK KURIKULUM
PENYAMPAIAN INOVATIF

TITLE

PBL360 (Bridging Knowledge and Practice in Pharmacy Education)

Category

Transformative Teaching (Pengajaran Tranformatif)

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UNIVERSITI SULTAN ZAINAL ABIDIN

First Edition 2025

AKRI eBook

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Pencalonan untuk Anugerah Khas YB Menteri Pendidikan 2025

Kategori Pengajaran Tranformatif (Transformative Teaching)

“Students learn best when they are engaged in solving meaningful, complex problems.”

-Hmelo-Silver, 2004-

CONTENT

PREFACE

Assalamu'alaikum warahmatullahi wabarakatuh

Alhamdulillah, praise be to ALLAH S.W.T, this AKRI 2025 portfolio has been prepared to share the innovative pedagogical practices we have implemented at the Faculty of Pharmacy, Universiti Sultan Zainal Abidin. In today's evolving landscape of pharmacy education, the ability to think critically, analyze complex clinical information, and apply knowledge in real-world scenarios has become more essential than ever. While foundational science remains a cornerstone of pharmacy training, bridging the gap between theoretical knowledge and clinical application continues to be a challenge for educators and students alike.

This e-book, "PBL360: Bridging Knowledge and Practice in Pharmacy Education", was developed in response to that very challenge. It documents an innovative, learner-centered teaching approach designed to transform passive learning into active clinical reasoning. Rooted in the principles of problem-based learning (PBL), PBL360 offers a structured yet flexible framework that immerses students in real-life clinical scenarios, promotes higher-order thinking, and cultivates the skills required for safe, effective, and evidence-based pharmaceutical care.

It is our hope that the ideas shared here will inspire new conversations, collaborations, and innovations in health education globally. Let this journey be a catalyst toward bridging not only knowledge and practice but also education and transformation.

Thank you

Dr. Nurulumi binti Ahmad
Ketua Projek
PBL360
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Julai 2025

SUMMARY OF ACHIEVEMENT

The implementation of *PBL360: Bridging Knowledge and Practice in Pharmacy Education* has successfully transformed traditional teaching methods into an active, student-centered learning experience aligned with real-world clinical practice. This initiative has achieved measurable impact across multiple domains of student development (cognitive, affective, and behavioral) by integrating structured, problem-based learning scenarios into the clinical pharmacy curriculum.

Through the staged analysis of authentic clinical cases, students demonstrated significant improvement in **Course Learning Outcome 1 (CLO1): Demonstrate communication skills in pathophysiology and pharmacotherapy for the specified disorders (A4,MQF3c,PLO5) .**They showed increased competency in applying clinical guidelines, interpreting laboratory data, identifying drug-related problems, and proposing rational pharmaceutical care plans.

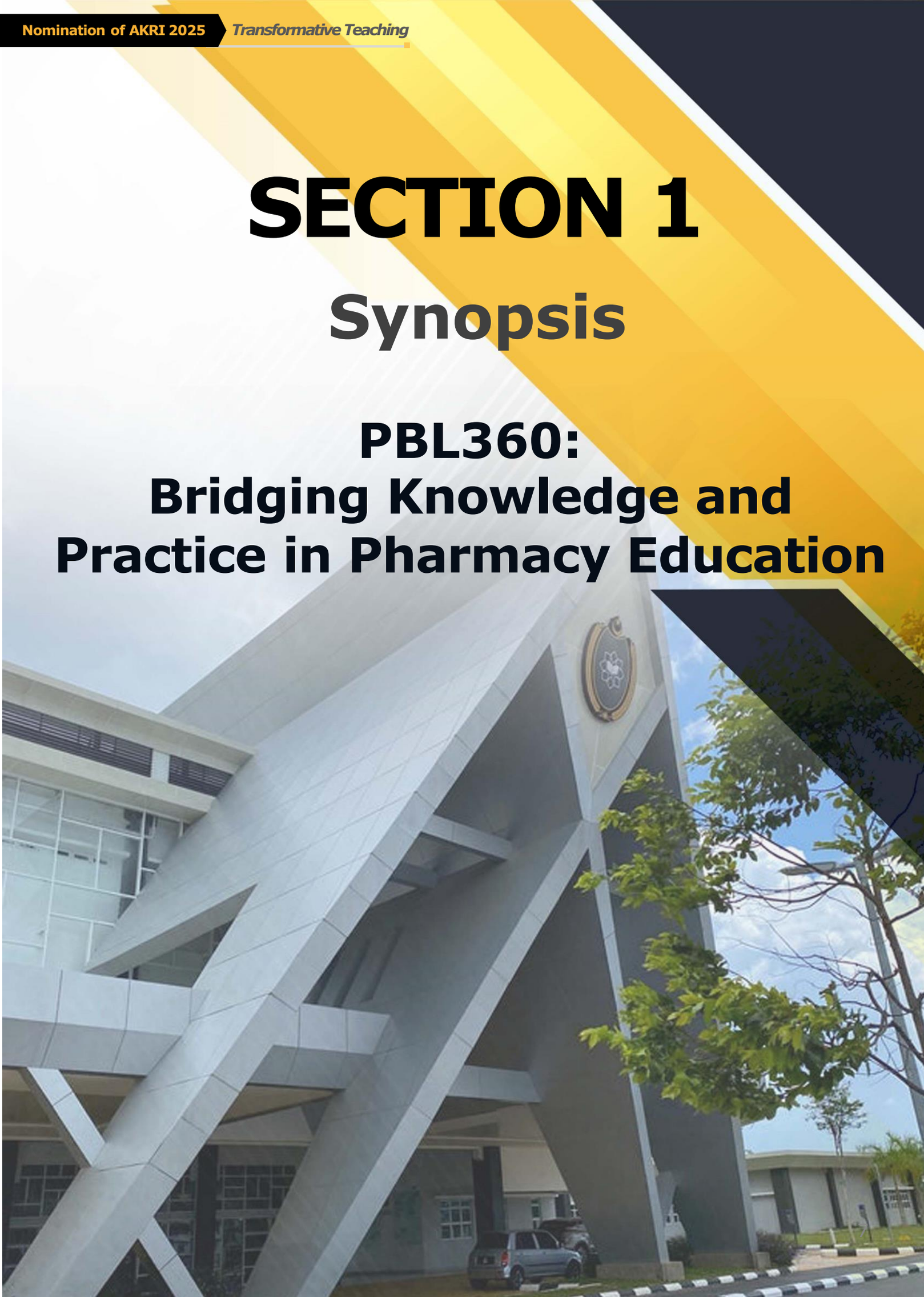
Authentic and performance-based assessments such as oral case presentations, concept maps, and written case analyses revealed marked growth in students' clinical reasoning, confidence, and communication skills. Feedback from both facilitators and students indicated enhanced engagement, preparedness, and motivation.

Additionally, *PBL360* fostered a collaborative learning culture that promoted professionalism, peer respect, and ethical reflection. Students actively participated in discussions, adhered to preparatory requirements, and demonstrated greater ownership of their learning.

SECTION 1

Synopsis

PBL360: Bridging Knowledge and Practice in Pharmacy Education



Real learning happens when learners are challenged, curious, and construct their own understanding

-David Merrill-

Synopsis of Transformative Teaching

This project showcases a transformative teaching approach for clinical pharmacy course; Therapeutics I (PHM31204) covering endocrine, cardiovascular, gastrointestinal and musculoskeletal. Throughout clinical years, there are six clinical subjects that students need to take. These courses are designed to develop students' critical thinking and analytical skills in identifying and managing drug therapy problems across multiple disease areas. The instructional design incorporates blended learning methods, including lectures, tutorials, e-learning modules, case-based learning, clinical attachments, and OSCE.

For this project, we focus on Therapeutics I subjects because this is the introduction subject for clinical, and we encounter many failures in this subject. A core focus of this project is to enhance students' ability to demonstrate communication skills in pathophysiology and pharmacotherapy for the specified disorders (A4,MQF3c,PLO5) through a structured case-oriented approach. Students are exposed to real and simulated clinical scenarios where they gather and interpret patient-specific information, such as laboratory data and medication profiles, to formulate therapeutic goals, identify drug-related problems (DRPs), and recommend appropriate pharmaceutical interventions. This process nurtures clinical reasoning, decision-making, and problem-solving abilities aligned with MQF3c.

Synopsis of Transformative Teaching

The project also integrates Higher Education 4.0 principles, emphasizing performance-based assessments, authentic tasks, and interdisciplinary learning experiences (HIEPs), which mirror real-world pharmacy practice. Students are required to communicate pharmaceutical care plans and provide patient-centered counselling. Emphasis is placed on professionalism, ethics, and continuous professional development, preparing students for collaborative and evidence-based practice.

The holistic implementation of this approach across multiple clinical subjects demonstrates a coherent and scalable model of curriculum transformation. It bridges theoretical knowledge with clinical application and empowers pharmacy students to take active roles in solving complex medication-related issues. By aligning closely with CLO1 and national outcome-based education standards, this innovation contributes meaningfully to the production of competent, analytical, and patient-focused pharmacy graduates.

Synopsis of Transformative Teaching

PBL360: Bridging Knowledge and Practice in Pharmacy Education is a transformative teaching initiative designed to address the critical gap between theoretical knowledge and clinical application in pharmacy education. Traditional approaches, which rely heavily on lectures and factual recall, have often failed to prepare students for the complex decision-making required in clinical settings.

PBL360 was introduced as a structured, problem-based learning model that empowers students to think critically, work collaboratively, and engage deeply with authentic clinical scenarios. This approach centers around staged case-based learning, where students analyze realistic patient cases using hardcopy clinical guidelines, textbooks, and reference materials without the aid of gadgets or digital tools. Through the “4 Wives and 1 Husband” method (What, Why, When, Who, How), students are guided to dissect each clinical case thoroughly, focusing not just on solving the case but on understanding the underlying pharmaceutical care issues.

Synopsis of Transformative Teaching

The goal is to cultivate higher-order thinking skills in alignment with MQF Level A4, specifically the ability to demonstrate communication skills in pathophysiology and pharmacotherapy for the specified disorders (CLO1). PBL360 also integrates authentic, performance-based assessments, including case presentations, concept maps, and written analysis. These assessments not only measure cognitive achievement but also enhance students' communication, ethical reasoning, and professional behavior. The initiative has demonstrated clear impact on student engagement, academic performance, and readiness for real-world pharmacy practice. PBL360 redefines the learning experience by fostering deep, reflective, and collaborative learning effectively bridging the gap between knowing and doing in clinical pharmacy education.

SECTION 2

Rationales

Challenges & Issues

The implementation of PBL360: Bridging Knowledge and Practice in Pharmacy Education marked a significant shift in teaching methodology, aiming to cultivate critical thinking and real-world clinical reasoning among pharmacy students. However, this transformative approach came with several challenges and issues, particularly in aligning student readiness and institutional practices with the demands of deeper, integrated learning.

A key underlying issue stemmed from the contrast between pre-clinical and clinical year learning paradigms. During the first and second years, students are primarily exposed to didactic, content-heavy subjects such as anatomy, physiology, pharmacology, and pathophysiology. The emphasis in these early years tends to be on rote memorization, compartmentalized knowledge, and examination-based learning.

As students transition into their clinical years, they are suddenly expected to integrate knowledge from multiple disciplines, apply clinical guidelines, and make complex therapeutic decisions. This abrupt shift often results in a learning gap, where students find themselves unprepared to apply memorized knowledge in a meaningful, analytical, and patient-centered context .Student resistance and anxiety were evident in the early phases of PBL360 implementation. Accustomed to receiving structured lectures and model answers, many students struggled with the open-ended nature of PBL sessions. They were hesitant to voice their opinions, unsure how to navigate ambiguity, and lacked confidence in applying clinical guidelines independently.

Challenges & Issues

Another challenge was insufficient familiarity with using clinical references such as CPGs, NICE, or IDSA in therapeutic decision-making. Although students were allowed to use hardcopy materials during PBL360 (with gadgets strictly prohibited), many were unfamiliar with extracting relevant information efficiently, resulting in underdeveloped case analyses.

From the facilitators' perspective, effective implementation required a shift in teaching mindset from instructor to facilitator. Not all educators were equally prepared to guide discussion without dominating it. Facilitator training and standardization across groups were essential but time-consuming.

Lastly, there were initial difficulties in designing assessments that aligned with the goals of PBL360. Moving from exam-based evaluation to authentic, performance-based tasks such as concept maps and oral case presentations required rubric development, calibration among assessors, and formative feedback mechanisms to ensure fairness and consistency. Despite these challenges, the reflective and iterative nature of PBL360 allowed continuous refinement of both facilitation and assessment.

Constructive feedback from students and educators played a pivotal role in improving session structure, resource support, and student preparedness ultimately enhancing the impact of the initiative on clinical learning outcomes.

Rationales

The introduction of PBL360: Bridging Knowledge and Practice in Pharmacy Education was driven by the need to address critical gaps between pre-clinical learning and clinical application in pharmacy education.

Several key rationales underpin the development and implementation of this transformative teaching method:

1. Bridging the Theory- Practice Gap

In traditional pharmacy curriculum, the pre-clinical years are largely focused on theoretical content delivered through lectures and written assessments. Students are expected to memorize facts across subjects such as physiology, pharmacology, and pathophysiology. However, during the clinical years, students are suddenly expected to integrate this fragmented knowledge and apply it to real-world therapeutic problems. This shift often overwhelms students and leads to a lack of confidence and competence in clinical reasoning. PBL360 was designed to provide a structured and progressive bridge between foundational knowledge and its practical application in patient care.

2. Cultivating Higher-Order Thinking Skills

Conventional teaching methods tend to focus on lower-order cognitive skills such as remembering and understanding. In contrast, the practice of pharmacy particularly in clinical settings requires analysis, evaluation, and decision-making. PBL360 aligns with MQF Level A4 by promoting critical thinking, synthesis of information, and evidence-based therapeutic planning

Rationales

3. Enhancing Student Engagement and Autonomy

There was a growing concern over students' passive learning habits and over-reliance on lecturers to provide answers. PBL360 promotes student-centered learning, encouraging autonomy, accountability, and collaborative inquiry. Students take ownership of their learning by discussing, analyzing, and justifying clinical decisions in a safe, guided environment.

4. Simulating Real-World Clinical Practice

The pharmacy profession requires graduates to be skilled in solving complex clinical problems, communicating with healthcare professionals, and adhering to ethical principles. PBL360 mirrors real-life clinical situations by using authentic case scenarios and requiring students to refer to guidelines such as CPGs, NICE, or IDSA—just as they would in practice.

5. Addressing Curriculum Integration Needs

Feedback from both educators and students revealed a lack of integration across courses and disciplines. PBL360 was developed to encourage interdisciplinary thinking by requiring students to draw upon multiple knowledge domains simultaneously, thereby reinforcing the interconnectedness of the pharmacy curriculum.

Rationales

6. Supporting Holistic Graduate Attributes

Beyond knowledge and technical skills, PBL360 was designed to enhance communication, ethical reasoning, teamwork, and professional identity. These attributes are essential in producing competent, compassionate, and practice-ready pharmacists who can thrive in multidisciplinary healthcare environments.

In summary, PBL360 was developed not merely as a new teaching strategy, but as a strategic educational intervention to reshape how pharmacy students learn, think, and apply knowledge—ultimately aiming to produce safer, smarter, and more competent pharmacy graduates.

SECTION 3

Approaches

Alignment of Transformative Teaching Approach

The implementation of the transformative teaching process through the PBL360 approach was systematically designed to align with the course learning outcomes, particularly CLO1: to demonstrate communication skills in pathophysiology and pharmacotherapy for the specified disorders (A4, MQF3c, PLO5). This approach was embedded across multiple clinical pharmacy courses, including endocrine, cardiovascular, gastrointestinal, respiratory, infectious diseases, oncology, neurological, psychiatric, musculoskeletal, and dermatological disorders.

The teaching process begins with the introduction of realistic or simulated clinical cases, carefully crafted to match the students' level while gradually increasing in complexity. These cases include patient history, medication records, clinical signs, and laboratory data. Students are given time to analyze the case individually before proceeding to small group discussions.

Alignment of Transformative Teaching Approach

The core of this approach lies in the Problem-Based Learning (PBL) sessions, where students work collaboratively in small groups under the guidance of a facilitator. During these sessions, students are expected to identify the primary clinical issues, define and classify drug therapy problems (DTPs), and propose evidence-based pharmaceutical care plans. They are encouraged to refer to current clinical guidelines such as CPGs, NICE, or IDSA, thus reinforcing their ability to apply up-to-date evidence in decision-making. This aligns directly with MQF Level A4, which emphasizes higher-order thinking skills such as analysis and application. Students will be given at least 3 scenarios in stages. They will identify cues, pharmaceutical care issues and objectives (4 Wives and 1 Husband methods; What,Why,When,Who and How). Their aim is not to solve the clinical case but to dig deeper in each of the objectives identified in each scenarios.

To assess students' understanding and clinical reasoning, authentic and performance-based assessments are employed. These include case-based assignments, oral presentations and to produce concept map. These methods assess students' ability to synthesize clinical information, prioritize DTPs, and recommend rational therapeutic interventions. During PBL360 no gadgets are allowed and students only can bring hardcopy of their textbooks, dictionaries, guidelines or any reference books.

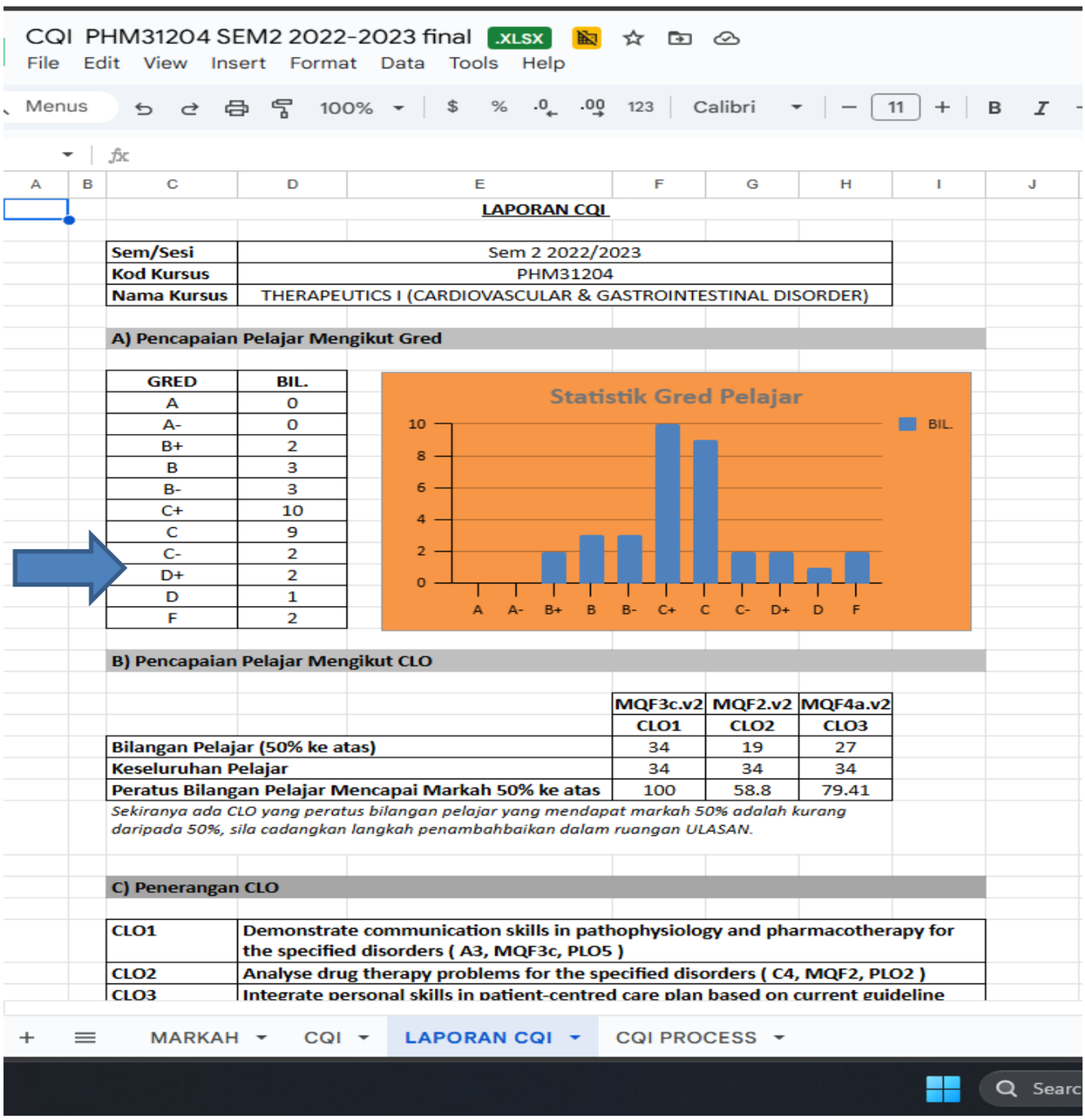
Alignment of Transformative Teaching Approach

In this model, the role of the educator shifts from being a lecturer to a facilitator. Educators provide guidance, monitor progress, and encourage critical reflection without dictating answers. Feedback is provided regularly and constructively to enhance clinical judgment and encourage deeper inquiry. The learning process becomes more active, collaborative, and contextual, focusing on real-world application rather than rote memorization.

By implementing PBL360, the teaching process supports students in achieving CLO1 effectively. It enables them to analyze therapy problems confidently, apply multidisciplinary knowledge, and function more like professionals-in-training. The method creates a safe space for trial and error, encourages teamwork, and nurtures independent thinking. Most importantly, it closes the gap between theoretical understanding and clinical competence, producing graduates who are not only knowledgeable but also practice-ready and capable of contributing meaningfully to healthcare teams.

Alignment of Transformative Teaching Approach

Semester II 2022/2023



CQI PHM31204 SEM2 2022-2023 final .XLSX

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LAPORAN CQI

Sem/Sesi	Sem 2 2022/2023
Kod Kursus	PHM31204
Nama Kursus	THERAPEUTICS I (CARDIOVASCULAR & GASTROINTESTINAL DISORDER)

A) Pencapaian Pelajar Mengikut Gred

GRED	BIL.
A	0
A-	0
B+	2
B	3
B-	3
C+	10
C	9
C-	2
D+	2
D	1
F	2

B) Pencapaian Pelajar Mengikut CLO

	MQF3c.v2 CLO1	MQF2.v2 CLO2	MQF4a.v2 CLO3
Bilangan Pelajar (50% ke atas)	34	19	27
Keseluruhan Pelajar	34	34	34
Peratus Bilangan Pelajar Mencapai Markah 50% ke atas	100	58.8	79.41

Sekiranya ada CLO yang peratus bilangan pelajar yang mendapat markah 50% adalah kurang daripada 50%, sila cadangkan langkah penambahbaikan dalam ruangan ULASAN.

C) Penerangan CLO

CLO1	**Demonstrate communication skills in pathophysiology and pharmacotherapy for the specified disorders (A3, MQF3c, PLO5)**
CLO2	**Analyse drug therapy problems for the specified disorders (C4, MQF2, PLO2)**
CLO3	**Integrate personal skills in patient-centred care plan based on current guideline**

MARKAH CQI LAPORAN CQI CQI PROCESS

There are **7 failures** in Therapeutics I (2022/2023).

Alignment of Transformative Teaching Approach

Semester II 2023/2024

LAPORAN CQI

Sem/Sesi	SEMESTER II SESI 2023/2024
Kod Kursus	PHM31204
Nama Kursus	THERAPEUTICS I (CVS & GIT)

A) Pencapaian Pelajar Mengikut Gred

GRED	BIL.	GRAF
A	0	
A-	0	
B+	0	
B	0	
B-	1	I
C+	9	IIIIIIIII
C	24	IIIIIIIIIIIIIIIIIIIIIIII
C-	2	II
D+	6	IIIIII
D	7	IIIIIII
F	1	I

B) Pencapaian Pelajar Mengikut CLO

	MQF3c.v2	MQF2.v2	MQF4a.v2
	CLO1	CLO2	CLO3
Bilangan Pelajar (50% ke atas)	48	12	49
Keseluruhan Pelajar	50	50	50
Peratus Bilangan Pelajar Mencapai Markah 50% ke atas	96.00	24.00	98.00

Sekiranya ada CLO yang peratus bilangan pelajar yang mendapat markah 50% adalah kurang daripada 50%, sila cadangkan langkah penambahbaikan dalam ruangan ULASAN.

C) Penerangan CLO

CLO1	Demonstrate communication skills in pathophysiology and pharmacotherapy for the specified disorders. [A3, MQF3c]
CLO2	Analyze drug therapy problems for the specified disorders. [C4, MQF2]
CLO3	Integrate personal skills in patient-centred care plan based on current guidelines as well as patient's clinical and laboratory data. [A4, MQF4a]

MARKAH | CQI | LAPORAN CQI | Nota

There are 16 failures in Therapeutics I (2023/2024). Department Clinical Pharmacy and Pharmacy Practice agrees to introduce PBL360 to train students to have critical thinking and teach them how to approach each clinical cases.

Alignment of Transformative Teaching Approach

The Journey of PBL360

We invited two experienced speakers from the Faculty of Pharmacy, University of Cyberjaya, who have been implementing Problem-Based Learning (PBL) since 2012 and are well-versed as facilitators in this approach. Their visit served as a valuable opportunity to provide a comprehensive briefing and hands-on practical session for our academic team prior to the full implementation of PBL360. This engagement ensured that our facilitators were adequately prepared and aligned with best practices in PBL delivery.

Alignment of Transformative Teaching Approach

The Journey of PBL360

Alignment of Transformative Teaching Approach

Our 1st PBL360 (Introduction Session)
Fourth Year
16th October 2024

Students were introduced to PBL360 and was brief regarding the procedures, the do and don'ts during PBL360; there were 2 sessions (1st session was Case Triggers and 2nd session Case Presentation and Concept Map)

Alignment of Transformative Teaching Approach

Our 1st PBL360 (Case Triggers-1st session)
Fourth Year
28th October 2024

Alignment of Transformative Teaching Approach

Our 1st PBL360 (Case Presentation- 2nd session)
Fourth Year
14th November 2024

Students presented their findings and produce concept map for the case

Alignment of Transformative Teaching Approach

PBL360 (Introduction Session)
Third Year
10th March 2025

Students were introduced to PBL360 and was brief regarding the procedures, the do and don’ts during PBL360; there were 2 sessions (1st session was Case Triggers and 2nd session Case Presentation and Concept Map)

Alignment of Transformative Teaching Approach

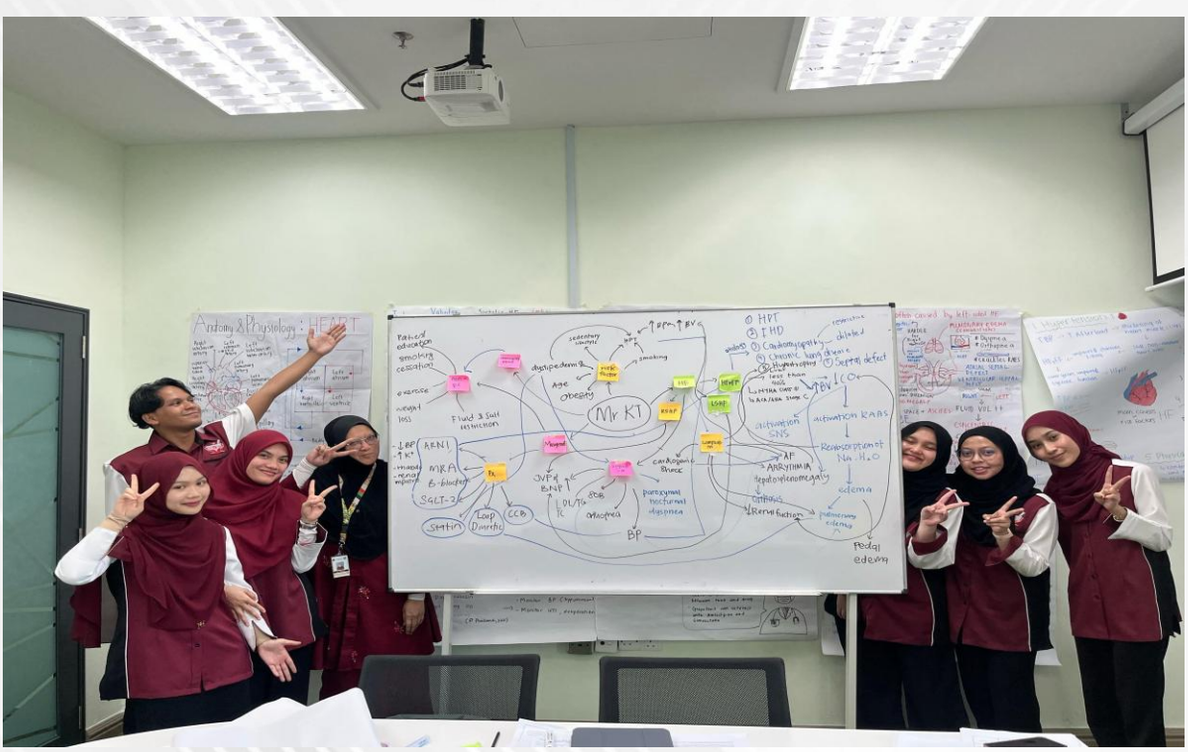
PBL360 (Case Triggers-1st session)
Third Year
24th March 2025

Alignment of Transformative Teaching Approach

PBL360 (Case Presentation- 2nd session)
Third Year
16th April 2025

Alignment of Transformative Teaching Approach

PBL360 (Case Presentation- 2nd session)
Third Year
16th April 2025



Alignment of Transformative Teaching Approach

PBL360 (Introduction Session)
First Year
22nd April 2025

Students were introduced to PBL360 and was brief regarding the procedures, the do and don’ts during PBL360; there were 2 sessions (1st session was Case Triggers and 2nd session Case Presentation and Concept Map)

Alignment of Transformative Teaching Approach

PBL360 (Case Triggers-1st session)
First Year
26th May 2025

Alignment of Transformative Teaching Approach

PBL360 (Case Presentation- 2nd session)
First Year
15th June 2025

Alignment of Transformative Teaching Approach

The PBL360 transformative teaching method is grounded in several well-established learning theories and pedagogical frameworks that support its effectiveness in cultivating critical clinical thinking and decision-making among pharmacy students.

Firstly, it is based on the principles of Constructivist Learning Theory, which emphasizes that students actively construct knowledge through experience, interaction, and reflection. In PBL360, learners are not passive recipients but actively engage in analyzing clinical scenarios, discussing pharmaceutical care issues, and applying prior knowledge to solve real-world problems.

The Problem-Based Learning (PBL) framework serves as the core instructional model. It uses authentic, staged clinical cases to stimulate inquiry, encourage student-led exploration, and promote collaborative problem-solving. Rather than focusing on obtaining the correct answer, PBL360 encourages deeper understanding by guiding students through multiple layers of clinical reasoning.

Aligned with Bloom's Taxonomy (Cognitive Domain Level C4), the approach targets higher-order thinking skills—particularly analysis and application. Students must dissect complex cases, identify drug therapy problems (DTPs), and design evidence-based interventions using current guidelines such as CPGs or NICE.

The design also reflects principles from High-Impact Educational Practices (HIEPs), including collaborative learning, authentic assessments, and inquiry-based tasks that foster engagement and retention.

Finally, PBL360 follows Biggs' Constructive Alignment Model, ensuring that course learning outcomes (CLOs), teaching strategies, and assessments are purposefully aligned. This creates a coherent learning experience where students are assessed on what they are expected to achieve—specifically the ability to analyze and manage drug therapy problems effectively.

Alignment of Transformative Teaching Approach

SAMR MODEL & PBL360 INTEGRATION

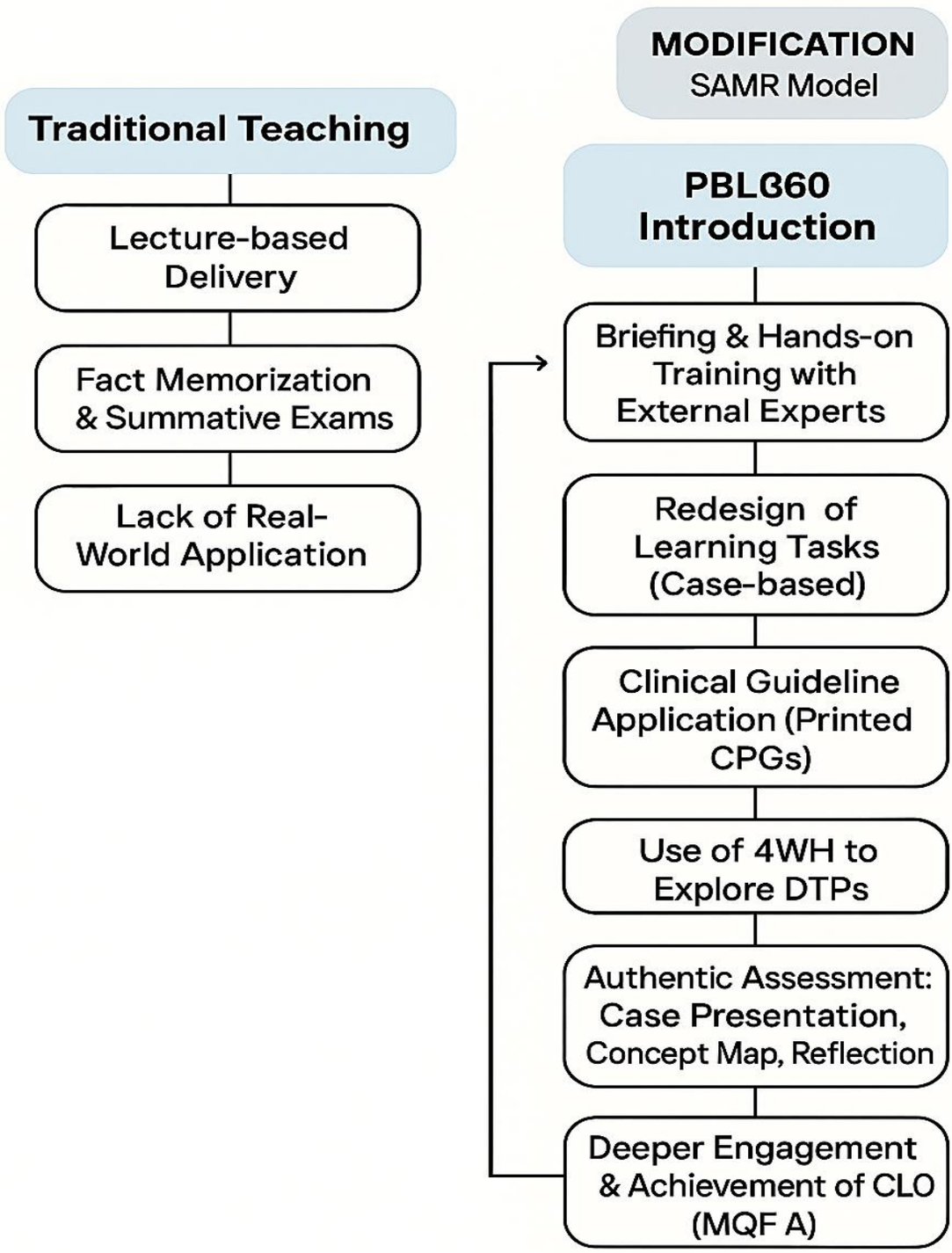
SAMR Level	Definition	PBL360 Alignment
Substitution ✗	Tech or method acts as a direct substitute with no functional change	Using printed slides instead of handwritten notes
Augmentation ✓	Substitute with functional improvement	Replacing paper quizzes with interactive oness
Modification ✓	Task is significantly redesigned to enhance learning	**PBL360** transforms learning into structured, miulti-stage, analytical discussions
Redefinition ⚠	Learning tasks previously inconceivable are created through new tech/method	Not applicable – No digital or cross-disciplinary reinvention

Why Modification?

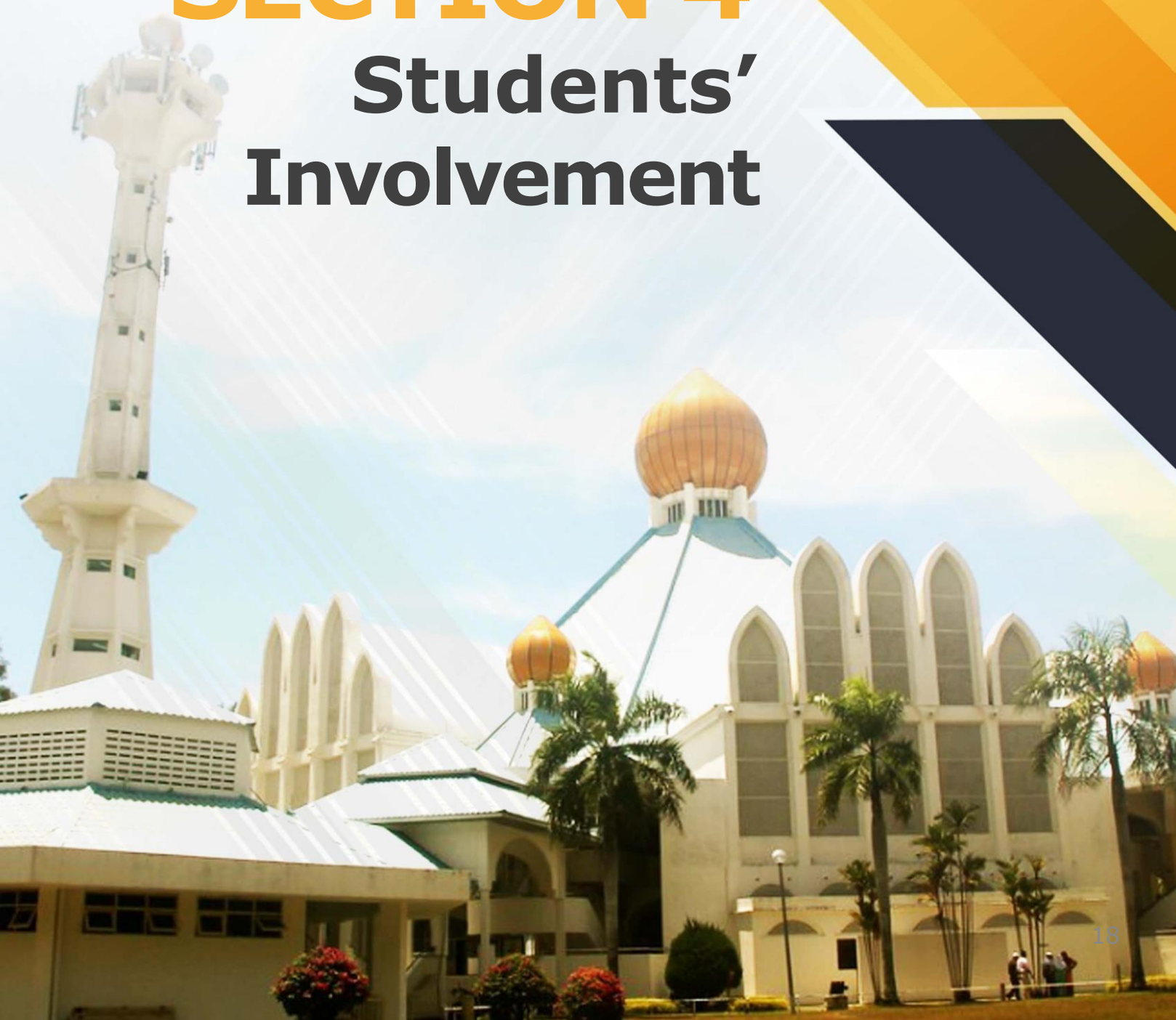
- **Learning redesigned** from passive lectures to staged case exploration
- **Authentic assesaments:** concept maps, DTP prioritization, oral case presentations
- **Facilitator-led** reasoning with real guidelines (e.g, CPGs/NICE)
- **No gadgets allowed** – promotes deep clinical thinking using only essential referances

Alignment of Transformative Teaching Approach

Stages of Transformation for PBL360



SECTION 4
Students' Involvement



“PBL is not just a teaching method—it is a learning philosophy”

Howard S. Barrows,
pioneer of PBL in medical education

Enhancing Student Engagement in Meaningful Learning Experience

The 'Seven Step' PBL process

Step 1: Clarify unknown terms and concepts

Step 2: Define the problem(s)

Step 3: Analyse the problem(s) - "Brainstorm"

Step 4: List of the analysis and structuring the brainstorming

Step 5: Formulate Learning Objectives (4W 1H)

Step 6: Collect additional information focused on Learning Objectives

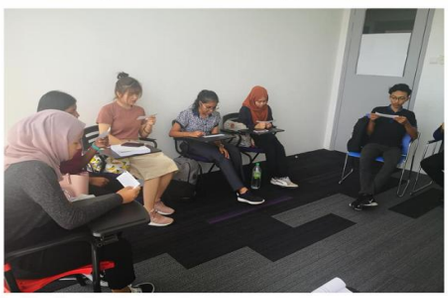
Step 7: Synthesise and present new information

Enhancing Student Engagement in Meaningful Learning Experience

The PBL Process: Session 1 - Trigger

Step 1: Clarify unknown terms and concepts

The tutor provides the group with the case.



Step 2 : Define the problem

- Define the problem or problems to be discussed.
- The group should discuss and reach an agreement on the tricky events, which need explanation.
- Though they have some prior knowledge to recognize a problem, the prior knowledge doesn't allow them to resolve the problem straight away.

Step 3: Analyse the problem(s) - "Brainstorm"

- Everything is allowed (no stupid question)
- Collection of ideas
- Each individual may express his or her ideas free and without immediate discussion
- It is important not to discuss and not to comment the ideas of others during this step, but to collect many ideas (prior knowledge).

Step 4: List of the analysis and structuring the brain storming

- What student know?
- What they do not know?
- What they need to know?
- Identify "nice to know"

(4W,1H) The words of the question should be chosen to facilitate the search for information.

- Students may identify gaps in their knowledge. (GOK)
- Example : in hypertension case, the regulation of BP, anatomy & physiology of cardiovascular system,

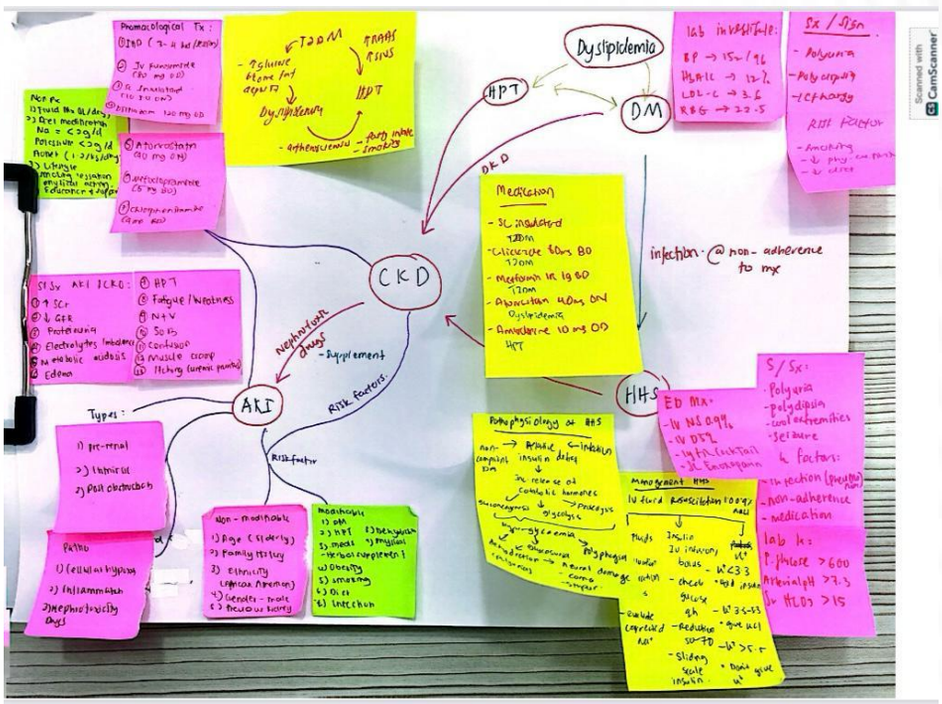
Step 5: Formulate Learning Objectives

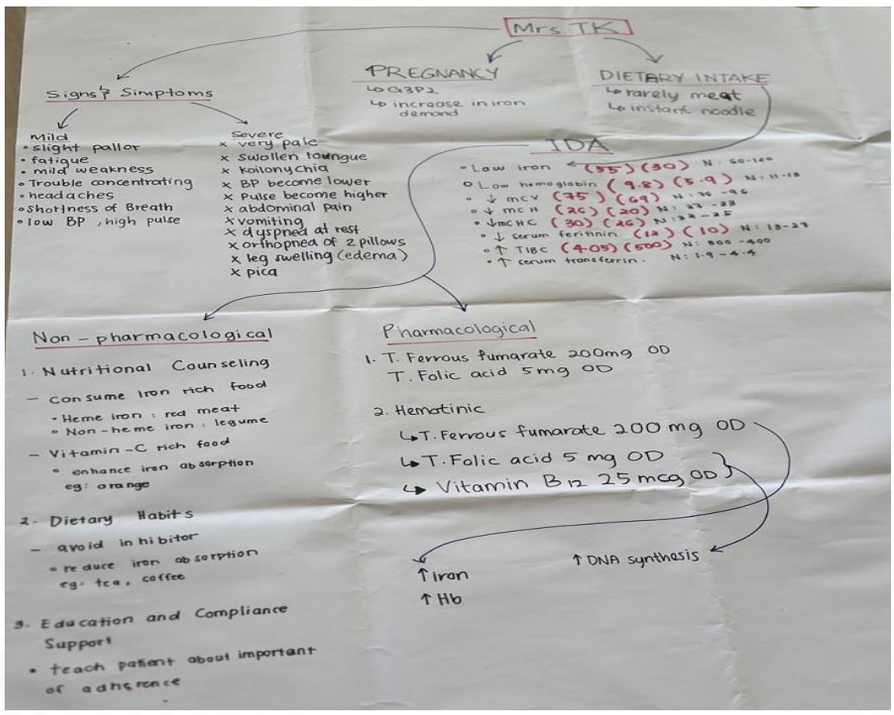
- The identification of gaps in knowledge helps students to formulate their learning objectives and these become the **focus** of self-directed study in the interval between session.
- Learning objectives should be clear and specific and of appropriate scope to be addressed in the time available between time allocated (typically 1 week).
- At end of PBL discussion, facilitator will check the learning objective identified by students.

Step 7:Synthesise and present new information

- During their presentation, students present their finding (self-directed study) **related to the case** and share and integrate new knowledge.
- The exchange and debate (Q&A) of ideas promotes the consolidation (Concept Map) and elaboration of new knowledge and understanding.

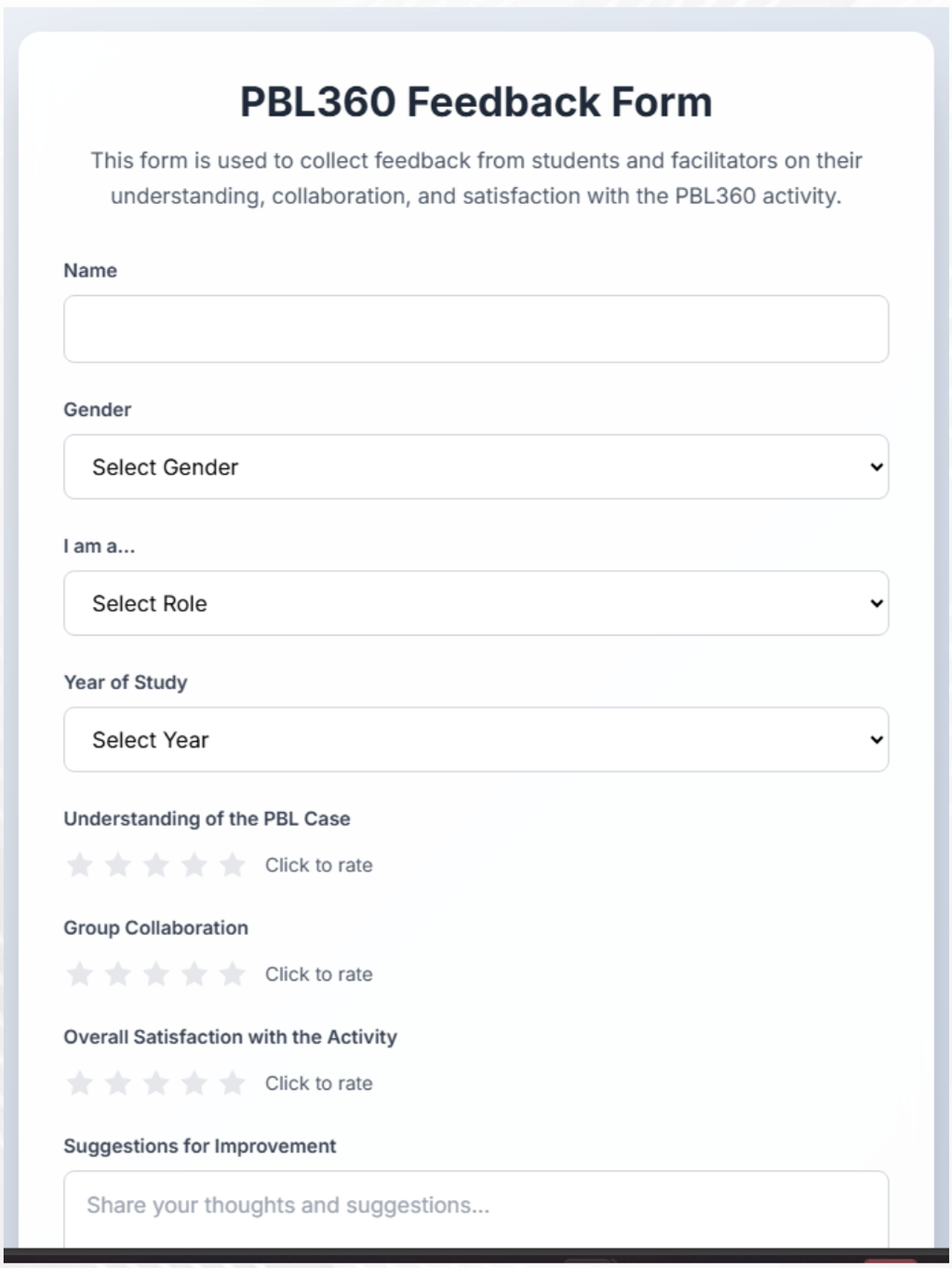
Enhancing Student Engagement in Meaningful Learning Experience





Concept Map

Enhancing Student Engagement in Meaningful Learning Experience



PBL360 Feedback Form

This form is used to collect feedback from students and facilitators on their understanding, collaboration, and satisfaction with the PBL360 activity.

Name

Gender

Select Gender

I am a...

Select Role

Year of Study

Select Year

Understanding of the PBL Case

Click to rate

Group Collaboration

Click to rate

Overall Satisfaction with the Activity

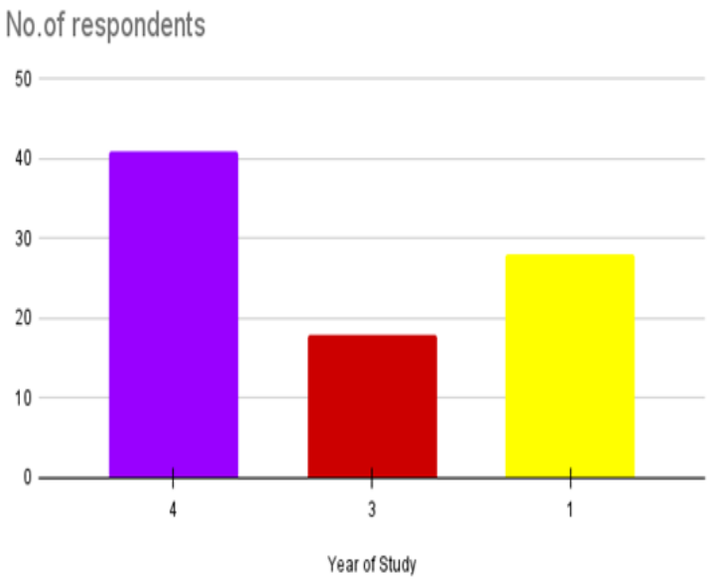
Click to rate

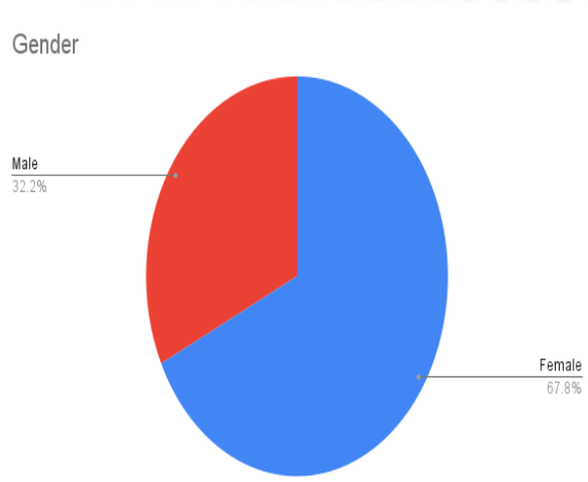
Suggestions for Improvement

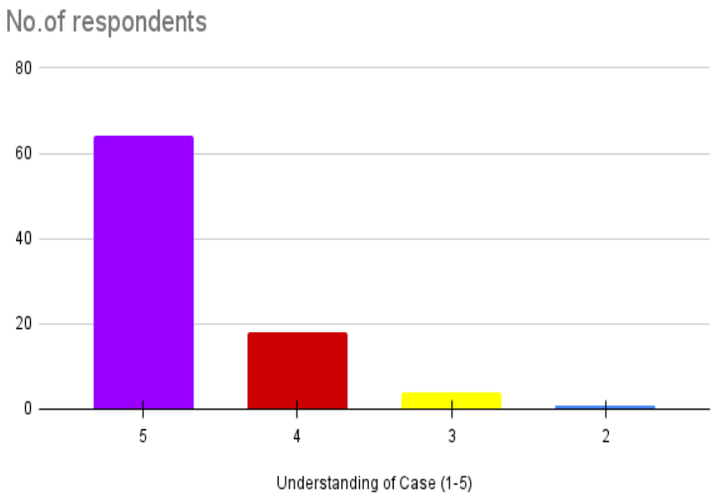
Share your thoughts and suggestions...

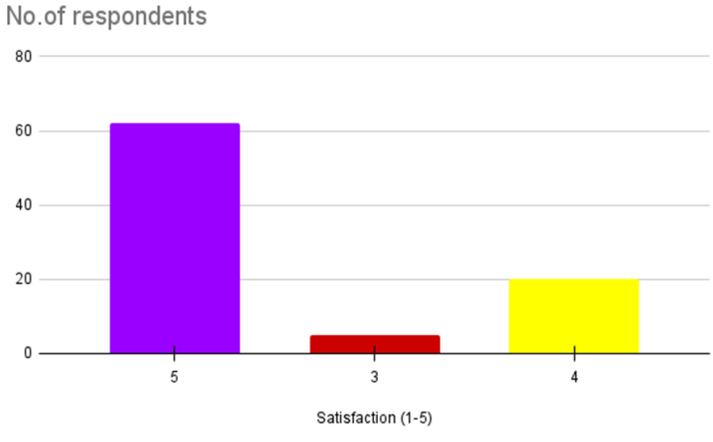
Enhancing Student Engagement in Meaningful Learning Experience

Results:
87 respondents (6 facilitators; 81 students)









SECTION 5

Impact on Learning

Evaluating Students' Ability in Achieving Learning Outcomes

Suggestions:

more PBL SESSION
More time to crack down the case
Less advanced cases for year one
"Feedback session with facilitator on what can be improved.“

Small group of students would be better
More PBL like case study for Year 1 in the future
More PBL case for year 4

First Years are lacking in fundamental physiology and biochemistry understanding. Most probably due to lack of formal assessment in the curriculum related to case-based learning. This should be integrated as early as first semester to support the application of their knowledges later during clinical year (3rd and 4th year).

Early implementation of PBL as formative assessment can improve their clinical problem solving skills. Suggest to prepare a bank of PBL to cover as much diseases as possible.

Evaluating Students' Ability in Achieving Learning Outcomes

Suggestions:

Problem-based learning (PBL) in the pharmacy course has helped me think critically and apply what I've learned to real-life situations, making the learning process more meaningful. In my opinion, it also improves teamwork and communication, which are crucial for working effectively in healthcare settings. I find PBL very engaging because it connects classroom knowledge with actual patient care, making it easier to understand and remember.

Add more group discussion sessions before the presentation. To ensure all group member understand the case and know their task.

Add more group discussion sessions before the presentation. To ensure all group member understand the case and know their task.

I think i can improve my skill to present in the front of the lecturer and my friends

I think the PBL were well conducted. I can understand the case really well with the facilitator and groupmate help.

Evaluating Students' Ability in Achieving Learning Outcomes

Suggestions:

It is a great event and provide good opportunities for us to study together, explore new knowledge, foster teamwork and facilitate the relationship between course mates. I hope to have more PBL session sorely for more efficient study but not for CONASS only

In future do pre and post test

Good

I SUGGEST THAT PBL SHOULD BE DONE AS EARLY AS SEMESTER 3, AS IT COULD HELP STUDENTS TO UNDERSTAND THE PRACTICAL BASED QUESTIONS NOT JUST ONLY BASED ON THEORY.

good activity to understand and solving a case

I just think we need practice.

Evaluating Students' Ability in Achieving Learning Outcomes

Suggestions:

PBL case is very useful as it allows unto critically think and come to conclusion together with our friends. My suggestion to improve is , the PBL should be done more frequently among juniors every semester so that they can get greater exposure to clinical case studies even before the enter clinical year. PBL case should also cover cases with multiple comorbidities so that the juniors are aware of drug-drug interaction, drugs with renal dosage adjustment even before they enter clinical years

Its fun, we learnt, study more when go through the case. I suggest to introduce this start year 1.

Conduct PBL for each semester from year 1 to year 4

I love that this activity was conduct early so we were taught to be more prepare before the presentation stage.
Such a good activities and help us understand more as we learn.

Can start to do PBL session every semester from Year 1 onwards to improve their knowledge in clinicals

Evaluating Students' Ability in Achieving Learning Outcomes

Suggestions:

Add more group discussion sessions before the presentation. To ensure all group member understand the case and know their task.

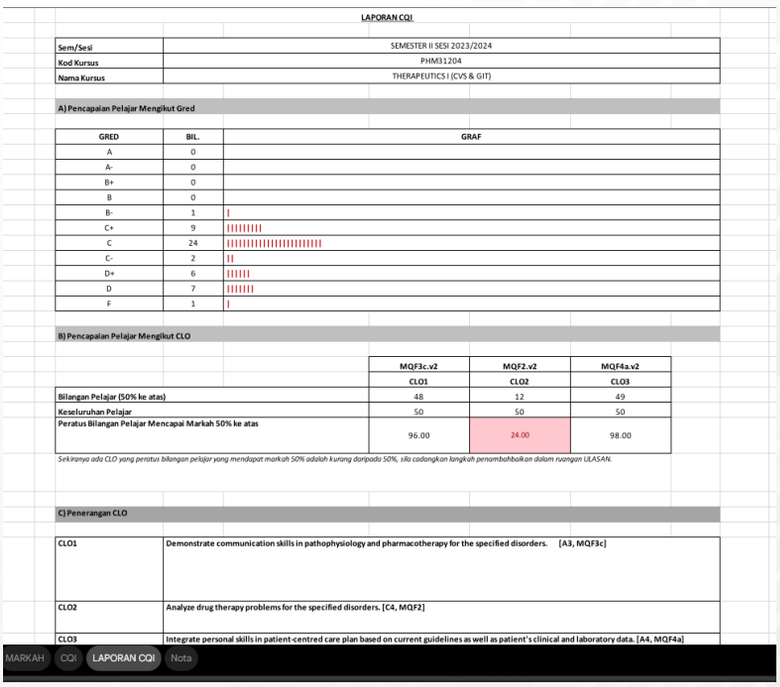
Add more group discussion sessions before the presentation. To ensure all group member understand the case and know their task.

I think i can improve my skill to present in the front of the lecturer and my friends

I think the PBL were well conducted. I can understand the case really well with the facilitator and groupmate help.

Evaluating Students' Ability in Achieving Learning Outcomes

Semester II 2023/2024



LAPORAN CQI

Sem/Sesi	SEMESTER II SESI 2023/2024
Kod Kursus	PHM31204
Nama Kursus	THERAPEUTICS I (CVS & GIT)

A) Pencapaian Pelajar Mengikut Gred

GRED	BIL.	GRAF
A	0	
A-	0	
B+	0	
B	0	
B-	1	I
C+	9	IIIIIIIII
C	24	IIIIIIIIIIIIIIIIIIIIIIII
C-	2	II
D+	6	IIIIII
D	7	IIIIIII
F	1	I

B) Pencapaian Pelajar Mengikut CLO

	MQF3c.v2 CLO1	MQF2.v2 CLO2	MQF4a.v2 CLO3
Bilangan Pelajar (50% ke atas)	48	12	49
Keseluruhan Pelajar	50	50	50
Peratus Bilangan Pelajar Mencapai Markah 50% ke atas	96.00	24.00	98.00

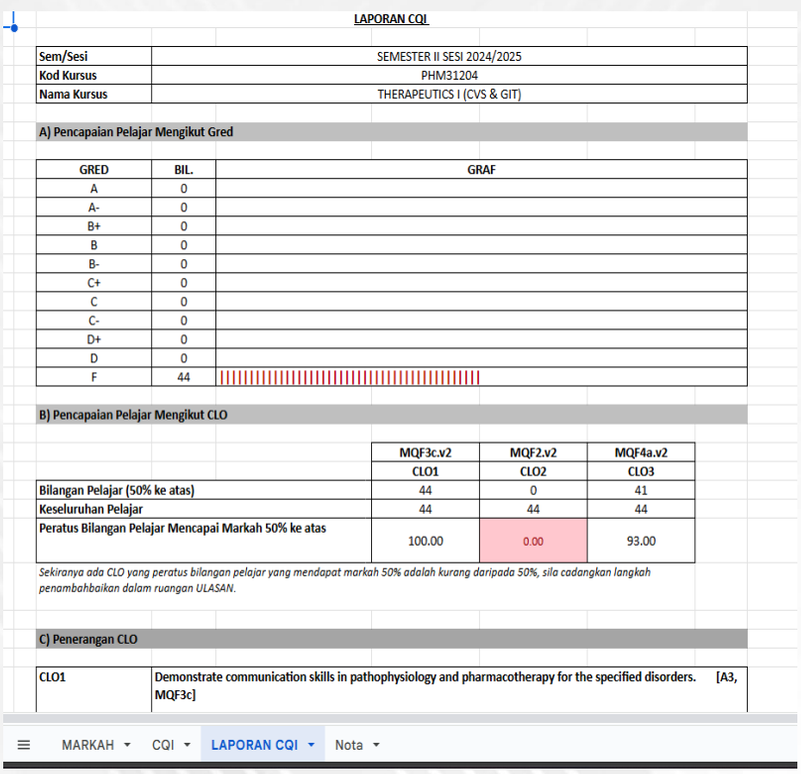
Sekiranya ada CLO yang peratus bilangan pelajar yang mendapat markah 50% adalah kurang daripada 50%, sila cadangkan langkah penambahbaikan dalam ruangan ULASAN.

C) Penerangan CLO

CLO1	Demonstrate communication skills in pathophysiology and pharmacotherapy for the specified disorders. [A3, MQF3c]
CLO2	Analyze drug therapy problems for the specified disorders. [C4, MQF2]
CLO3	Integrate personal skills in patient-centred care plan based on current guidelines as well as patient's clinical and laboratory data. [A4, MQF4a]

MARKAH CQI LAPORAN CQI Nota

Semester II 2024/2025



LAPORAN CQI

Sem/Sesi	SEMESTER II SESI 2024/2025
Kod Kursus	PHM31204
Nama Kursus	THERAPEUTICS I (CVS & GIT)

A) Pencapaian Pelajar Mengikut Gred

GRED	BIL.	GRAF
A	0	
A-	0	
B+	0	
B	0	
B-	0	
C+	0	
C	0	
C-	0	
D+	0	
D	0	
F	44	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII

B) Pencapaian Pelajar Mengikut CLO

	MQF3c.v2 CLO1	MQF2.v2 CLO2	MQF4a.v2 CLO3
Bilangan Pelajar (50% ke atas)	44	0	41
Keseluruhan Pelajar	44	44	44
Peratus Bilangan Pelajar Mencapai Markah 50% ke atas	100.00	0.00	93.00

Sekiranya ada CLO yang peratus bilangan pelajar yang mendapat markah 50% adalah kurang daripada 50%, sila cadangkan langkah penambahbaikan dalam ruangan ULASAN.

C) Penerangan CLO

CLO1	Demonstrate communication skills in pathophysiology and pharmacotherapy for the specified disorders. [A3, MQF3c]

MARKAH CQI LAPORAN CQI Nota

There is an increase in CLO1

SECTION 6

Achievement & Recognition

PUBLICATION

None

APPENDICES

Appendix :

https://drive.google.com/drive/folders/1m0-OAZH890Wu-juoUGyebVNFHr3SqmlY?usp=sharing

This video can be accessed at

https://drive.google.com/file/d/18Ju1em-xpJSRmhg68Dp0F52H0JxGkXse/view?usp=sharing