



ANUGERAH KHAS
YB MENTERI PENDIDIKAN
TINGGI :
REKABENTUK KURIKULUM
PENYAMPAIAN INOVATIF

TAJUK

PACU
(Program Amalan
Cakna Ubat)

Kategori
Pentaksiran
Alternatif

Dr. Nurulumi binti Ahmad
Aslinda binti Jamil
Habibah binti Kamruzaman
Dr. Umar Idris Ibrahim
Ahmad Kamal Arifin bin Abdul Jamil
Prof. Dr. Lua Pei Lin

Fakulti Farmasi
Universiti Sultan Zainal Abidin



يونيڤرسيتي سلطان زين العابدين
unisza
UNIVERSITI SULTAN ZAINAL ABIDIN

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AKRI eBook

Dr. Nurulumi binti Ahmad
Aslinda binti Jamil
Habibah binti Kamruzaman
Dr. Umar Idris Ibrahim
Ahmad Kamal Arifin bin Abdul Jamil
Prof. Dr. Lua Pei Lin

*Fakulti Farmasi
Universiti Sultan Zainal Abidin*

***Pencalonan untuk Anugerah Khas YB
Menteri Pendidikan 2024***

***Kategori
Pentaksiran Alternatif
(Alternative Assessment)***

“All students can learn and succeed, but not all on the same day, in the same way”

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PREFACE

Assalamu'alaikum warahmatullahi wabarakatuh

Alhamdulillah, praise be to ALLAH S.W.T, this AKRI 2024 portfolio has been prepared to share the innovative pedagogical practices we have implemented at the Faculty of Pharmacy, Universiti Sultan Zainal Abidin. The project titled "PACU: Program Amalan Cakna Ubat" is an initiative from the Department of Pharmacy Practice and Clinical Pharmacy consisting of Dr. Nurulumi binti Ahmad, Puan Aslinda binti Jamil, Cik Habibah binti Kamaruzaman, En. Ahmad Kamal Arifin bin Abdul Jamil, Dr. Umar Idris Ibrahim, and Prof. Dr. Lua Pei Lin.

A unique 6-week course where students will initially be exposed to the theory of how to identify and respond to symptoms of common ailments found in community pharmacies through lectures, discussions, group work, and practical demonstrations for 2 weeks. They will then continue with real-life exposure and practical training in professional medication preparation, counselling, over-the-counter (OTC) sales, and general management of retail/community pharmacies for the remaining 4 weeks. It incorporates elements of High-Impact Educational Practices (HIEPs) including Service Learning (SL), alternative assessment through authentic assessment, and flexible education with a heart (FlexS). Students should be able to recognize signs and symptoms of common ailments and use an evidence-based approach to self-care treatment, as well as acquire skills in customer interaction, sales, medication ordering, and overall business management. Students will then need to combine the theoretical and practical knowledge learned to conduct a community project to promote the proper use of medications.

This project involves the course PHM 41006: Community Pharmacy Clerkship. To make this project a success, cooperation from the students is greatly needed and appreciated, and we would like to express our sincere thanks to them. We also wish to extend our deepest gratitude for the support from the faculty, which has greatly helped us in continuing this noble initiative. It is hoped that the information shared in this portfolio will spark new ideas for the academic community that is always looking to improve and innovate their teaching and learning practices. All knowledge shared comes from ALLAH S.W.T and we, as His servants, are merely fulfilling our trust and responsibilities through the knowledge temporarily bestowed upon us by Him. Allahu'lam. Thank you.

Thank you.

Dr. Nurulumi binti Ahmad
Ketua Projek
INNO-HMR
Fakulti Farmasi
Universiti Sultan Zainal Abidin
Julai 2024

SUMMARY OF ACHIEVEMENT

The project titled "PACU: Program Amalan Cakna Ubat" is an initiative from the Department of Pharmacy Practice and Clinica Pharmacy has been implemented since 2022. The innovative teaching and learning materials from this project have received awards and medals at the Sulam Innovate Showcase & Symposium 2023, namely Best Presenter and Silver Award, which took place at Universiti Malaysia Kelantan on November 21, 2023.

Overall, this project has an impact on enhancing student learning in terms of increased knowledge acquisition, focus and cognitive retention, motivation, and reflective thinking. The impact is holistic, encompassing all three knowledge domains: cognitive, psychomotor, and affective. Thus, indirectly, this project produces holistic graduates ready to join the workforce. This project is also shared among academic staff of other universities through speaker invitations received by the project team members. This knowledge sharing is a recognition received by the project team members.

SECTION 1

Synopsis

PACU: Program Amalan Cakna Ubat

“ Technology will not replace great teachers but technology in the hands of great teachers can be transformational ”

George Couros

Synopsis of Alternative Assessment

Education in the 21st century learning era needs to be immersive, collaborative, interactive, and inclusive. The PACU (Program Amalan Cakna Ubat) is an innovative educational initiative designed to enhance students' understanding and practical skills in community pharmacy through immersive learning experiences. This program which aims to integrate alternative assessment methods to provide a more comprehensive evaluation of students' competencies. PACU aims to enhance students' knowledge and skills in identifying and responding to common ailments in a community pharmacy setting. It provides real-life exposure and hands-on training in medication preparation, patient counseling, over-the-counter (OTC) sales, and general pharmacy management. By incorporating High-Impact Educational Practices (HIEPs) such as Service Learning (SL), authentic assessment, and flexible education with a heart (FlexS), the program fosters holistic development in students, encompassing cognitive, psychomotor, and affective domains. The program employs alternative assessment methods, including authentic assessment through real-world tasks and scenarios, reflective learning with journals to document experiences and insights, peer and self-assessment exercises, and a community project aimed at promoting proper medication use. This comprehensive approach ensures that students acquire knowledge and develop critical skills and attitudes necessary for their future careers, fostering cognitive, emotional, and physical engagement to produce well-rounded, competent pharmacy professionals.

In general, by focusing on real-world applications, the program aims to enhance students' professional competencies and readiness for the workforce. This project makes a significant contribution to higher education institutions in understanding how to implement 21st-century innovative pedagogies in learning through alternative assessment.

SECTION 2

Rationales



Rationales & Challenges & Issues

Each student may have different experiences in community pharmacies, depending on the location and patient population, and alternative assessments ensure that all students are fairly evaluated based on their unique experiences. Practical skills such as patient interaction, use of pharmacy equipment, and clinical understanding are difficult to assess through written exams, making alternative assessments like direct evaluation and simulations more accurate reflections of students' abilities. Additionally, alternative assessments, such as logbooks and self-reflection, encourage continuous learning and self-improvement throughout students' careers. Communication skills with patients and other healthcare professionals are critical in community pharmacy, and alternative assessments can directly evaluate these skills. By using more interactive and relevant alternative assessments, students are more motivated and satisfied with their learning experience. These assessments reflect real-life situations that students will face in their careers, helping ensure they are better prepared for the challenges of actual pharmacy practice. With diverse student backgrounds, alternative assessments help ensure all students are evaluated fairly and equitably, regardless of their academic or previous experience. This initiative aims to improve the quality of pharmacy education and ensure graduates are better prepared to meet the needs and challenges of real-world community pharmacy practice.

Alternative assessments in pharmacy education aim to provide a comprehensive evaluation of students' practical skills and competencies in real-world scenarios such as patient interaction, medication dispensing, and counseling. By encouraging active and student-centered learning, these assessments ensure that students are actively engaged in their learning process and continuously improving. They evaluate critical competencies like critical thinking, problem-solving, and communication skills, which are challenging to measure through traditional exams alone. Moreover, alternative assessments allow for flexibility, accommodating diverse student needs and backgrounds, promoting a more inclusive educational environment. Ultimately, these approaches support the development of competent and effective pharmacists who are well-prepared to serve their communities.

SECTION 3

Approaches



Alignment of Alternative Assessment Approach

This alternative assessment aligns with learning outcomes for several reasons:

1. Effectiveness of Assessment: Alternative methods such as project-based assessments, logbooks, and presentations allow students to demonstrate deeper and more practical understanding. This contrasts with traditional exams that often only measure basic knowledge.

2. Student Engagement: Alternative assessments typically engage students more actively in their own learning process. By providing opportunities for creative problem exploration and solving, these methods foster critical thinking and problem-solving skills, which are aligned with desired learning outcomes.

3. Skill Development: Many learning outcomes focus not only on theoretical knowledge but also on skills development such as communication, collaboration, and time management. Alternative assessments enable the evaluation of these skills in real-world contexts.

4. Holistic Assessment: Alternative assessments are often more holistic, integrating various aspects of learning and providing a more comprehensive measure of student performance. This helps ensure that all aspects of learning receive appropriate attention.

5. Flexibility: Alternative assessment methods can be adapted to assess various types of learning outcomes, whether cognitive, affective, or psychomotor. This means they can be tailored to evaluate a wide range of student abilities.

Overall, these alternative assessment methods contribute to a richer educational experience that better prepares students to achieve the desired learning outcomes.

Alignment of Alternative Assessment Approach

This alternative assessment method represents adaptations and improvements from existing models or approaches. Here are several models used in student engagement activities and service-learning programs:

1.Outcome-Based Assessment Model: Assesses the impact or outcomes of service-learning programs on both the community and the students.

2.Authentic Assessment Model: Evaluates students' ability to apply knowledge and skills in real-world situations through service-learning activities.

3.Project-Based Learning Model: Students are assessed based on projects they plan and implement within the community, including planning, execution, and reflection phases.

4.Competency-Based Assessment Model: In this model, students are assessed based on specific competencies or skills required in their field. Each student must demonstrate that they have achieved a certain level of skill through practical tasks such as Home Medication Reviews and OSCE (Objective Structured Clinical Examination).

5.Work-Based Learning (WBL) Model: Through this approach, students are assessed based on their real-world work experiences during their engagement in community pharmacy. This includes assessment by workplace supervisors, self-reflection by students, and logbooks documenting their activities throughout the engagement period.

These models emphasize practical application, real-world impact, and competency development, aligning with the goals of enhancing student learning and community service through innovative assessment methods.

Alignment of Alternative Assessment Approach

The alternative assessment methods used are:

1.Objective Structured Clinical Examination (OSCE): A structured assessment method that evaluates students' clinical competence through simulated patient scenarios. It assesses both clinical skills and communication abilities in controlled and standardized situations.

2.Project Assessment: Students are required to undertake service-learning projects. Two activities involved are Health Carnival and Home Medication Review (HMR). These projects measure the level of innovative management and entrepreneurship of students in interacting with the community, healthcare professionals, and other stakeholders.

3.Engagement in Community Pharmacies:

1. **Logbook:** Students are required to fill out a provided logbook throughout their engagement.
2. **Performance Evaluation by Supervisor:** Supervisors are required to evaluate students' performance during their engagement in their respective community pharmacies.
3. **Presentation:** Students are required to prepare a presentation poster on a relevant topic suitable for the community pharmacy.
4. **Case Study:** Students analyze real-life situations or problems and propose reasonable solutions. This tests their ability to apply knowledge in real-world contexts.

These methods aim to comprehensively assess students' practical skills, professional interaction abilities, and problem-solving capabilities in real-world pharmacy settings.

Alignment of Alternative Assessment Approach

A. Alternative Assessment Planning

1. Setting Goals and Learning Objectives

1. Identifying learning objectives to achieve: a) Adapting current knowledge, technical expertise, and ethical pharmacy practices in addressing community health issues. b) Integrating appropriate values, attitudes, and professionalism in delivering community pharmacy practices. c) Practicing innovative management principles and entrepreneurship in interacting with the community, healthcare professionals, and other stakeholders through Service-Learning projects (SULAM).

2. Selection of Alternative Assessment Forms

1. Literature review and discussions on best practices to determine suitable assessment forms such as logbooks, projects, case studies, oral presentations and posters, and peer assessments.

3. Schedule and Assessment Period Planning

1. Planning appropriate times for assessment implementation to not disrupt teaching and learning processes.
2. Setting sufficient time periods for students to complete assigned tasks.

B. Alternative Assessment Development

1. Designing Assessment Task Formats

1. Developing challenging tasks relevant to real-world contexts.
2. Ensuring tasks are authentic and aligned with learning objectives.

2. Development of Assessment Rubrics

1. Creating clear and detailed rubrics to assess student performance.
2. Rubrics should have specific criteria and characteristics for each achievement level.

3. Preparation of Resources and Materials

1. Providing necessary reference materials and resources for students.
2. Offering clear guidelines on expectations for assessment tasks.

Alignment of Alternative Assessment Approach

C. Implementation of Alternative Assessment

1. Delivery of Instructions and Expectations

1. Providing clear and specific instructions for assessments to students.
2. Ensuring students understand assessment criteria and how to use rubrics.

2. Data Collection and Management

1. Collecting student work results through logbooks or self-reflective writing.
2. Systematically storing records of student performance.

3. Feedback and Improvement

1. Providing constructive feedback to students on their performance.
2. Using assessment results to make improvements for future assessments.

D. Evidence of Assessment and Measurement Tools

1. Objective Structured Clinical Examination (OSCE)

1. OSCE assesses students' communication skills with patients, families, and colleagues. This includes listening skills, explaining medical information, and demonstrating empathy and professionalism.

2. Project Assessment

1. Presentation of projects demonstrating students' understanding of topics.
2. Activities include health carnivals and home medication reviews.

3. Engagement in Community Pharmacies

1. Students participate in a selected community pharmacy engagement for 4 weeks.

4. Assessment Rubric

1. Assessment rubric showing assessment criteria for each achievement level.
2. Example rubric: as shown in the attachment.

This structured approach ensures comprehensive assessment of students' practical skills, ethical professionalism, and innovative thinking in community pharmacy settings.

SECTION 4

Students' Involvement



“

Digital learning means not being confined to brick & mortar classrooms, using blended learning platforms to differentiate experiences

”

Mark Quinn

Enhancing Student Engagement in Meaningful Learning Experience

Alternative assessment methods can enhance student engagement in several key ways:

1.Real-World Context: Alternative assessments often involve tasks related to real-life situations, such as projects, case studies, or simulations. This makes learning more relevant and engaging for students, allowing them to see how their knowledge is applied in real contexts.

2.Active Learning: Methods like group work, project-based learning, and performance-based assessments require students to actively engage in their learning process. They need to seek, analyze, and apply information, which can increase their involvement.

3.Choice and Freedom: Providing students with choices in how they are assessed can boost their motivation. For example, students may choose their own project topics or how they demonstrate their understanding of a concept.

4.Continuous Feedback: Alternative assessments often involve continuous feedback processes, where students receive input along the way and can make improvements. This helps students feel more engaged as they track their own progress and understand how to further enhance their work.

5.Development of Other Skills: These methods can also assess other skills such as collaboration, communication, and critical thinking, which are crucial in the real world but may not be effectively assessed through traditional exams. This gives students incentives to fully engage in their learning.

6.Use of Technology: Using digital tools and platforms in alternative assessment can make the learning process more interactive and engaging. For example, online forums, interactive learning software, and collaborative tools can enhance student engagement.

7.Assessment Based on Individual Choices: Alternative assessments allow for more personalized assessment tailored to individual needs and interests. This can help students feel more valued and motivated to engage in the learning process. In this SULAM project, students are given the freedom to choose committee portfolios that interest them and are deemed suitable for them.

Enhancing Student Engagement in Meaningful Learning Experience



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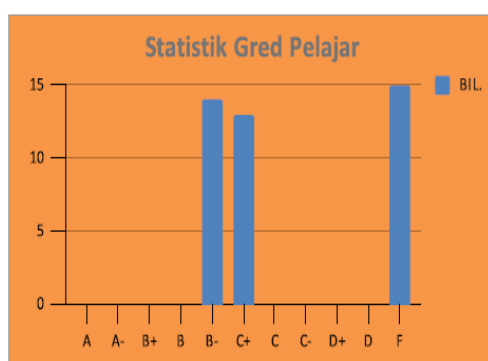


LAPORAN CQI

Sem/Sesi	Sem 2 Sesi 2022/2023
Kod Kursus	PHM41006
Nama Kursus	COMMUNITY PHARMACY CLERKSHIP

A) Pencapaian Pelajar Mengikut Gred

GRED	BIL.
A	0
A-	0
B+	0
B	0
B-	14
C+	13
C	0
C-	0
D+	0
D	0
F	15



B) Pencapaian Pelajar Mengikut CLO

	MQF3a.v2 CLO1	MQF5.v2 CLO2	MQF4b.v2 CLO3
Bilangan Pelajar (50% ke atas)	27	27	0
Keseluruhan Pelajar	42	42	42
Peratus Bilangan Pelajar Mencapai Markah 50% ke atas	4.2857142	4.2857142	0

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	Adapt current knowledge, technical expertise and professional pharmacy conduct in dealing with the community's health issues. (P6, MQF3a, PLO3)
CLO2	Integrate appropriate values, attitudes and professionalism in the process of community pharmacy practice delivery. (A4, MQF5, PLO11)
CLO3	Practice innovative managerial and entrepreneurial principles in interacting with consumers, healthcare professionals and other stakeholders in pharmacy business (A5, MQF4b, PLO10)

Enhancing Student Engagement in Meaningful Learning Experience

STUDENTS & UNIVERSITY

- Developed students' skills and talents in managing the program such as communication, collaboration, and time management.
- Improved relationship among students.
- Gained experiences in interacting with patients outside classroom.
- Applied knowledge and skills to benefit others.

TESTIMONI PENGARAH PROJEK



Suka untuk saya berkongsi disini **cabaran dan juga bagaimana saya harungi perkara tersebut.**

Perkara pertama yang melintas di fikiran adalah bagaimana kami pelajar tahun 4 ketika itu sedang bersiap-siaga untuk menjalani latihan industri di Pharmaniaga, Selangor selama 2 minggu.

Disertakan juga dengan ujian bagi memenuhi jadual pembelajaran kami dan ujian OSCE pada minggu berikutnya.

Tidak lupa juga, cuti raya serta cuti pertengahan semester yang menyingkatkan lagi masa untuk kami melakukan penyediaan bagi PACU. Namun begitu, dalam kekangan masa sebegini, urusan dibelakang tabdir tidak pernah berhenti. **Saya belajar untuk menggunakan masa secara optimum dengan menyenaraikan tugas harian sebagai segera atau tidak segera untuk memastikan tiada urusan yang terlepas.** Di samping itu, mempunyai perancangan awal turut membantu saya supaya tidak gelabah bila

ianya tidak terjadi seperti yang diharapkan.

kami telah menghadapi pelbagai rintangan dan cabaran. Salah satu rintangan adalah masa yang singkat untuk merangka dan merancang program, tidak termasuk lagi faktor-faktor seperti kekurangan kelengkapan walaupun kami telah mendapat kebenaran untuk menggunakannya serta kekurangan kewangan. Oleh itu, **kami selalu mengambil kira**

semua yang berlaku dan menyesuaikan diri jikalau terdapat situasi yang tidak dapat dielakkan pada hari kejadian. Selain itu, program HMR juga banyak menambah ilmu pengetahuan saya tentang ubat-ubatan serta membantu meningkatkan kemahiran berkomunikasi dengan masyarakat setempat.

<https://tinyurl.com/3md77tfa> - reflective writing

Walaubagaimanapun, saya telah mempelajari banyak perkara daripada program ini atas penglibatan saya dari awal persediaan program sehingga tamat program pada 11 Mei 2023. Melalui program ini, **saya dapat belajar untuk berfikir secara kreatif dan kritis untuk menilai risiko yang mungkin berlaku dan mengajar kami untuk bersedia mengalami sebarang perubahan dari masa ke semasa.** Selain

itu, saya berkesempatan juga untuk bekerjasama dengan 2 orang pelajar tahun 3 Fakulti Farmasi UniSA iaitu Siti Noorsyaziliah binti Hamzah dan Dalili Adawiyah binti Yusof dalam menjalankan tugas dibawah

AJK yang sama dimana kami sama-sama bergabung idea untuk menggarap teks ucapan dan memilih 'design' bagi buku program tersebut. **Ianya secara tidak langsung dapat mengeratkan lagi hubungan kami**

sebagai pelajar Fakulti Farmasi UniSA walaupun daripada batch yang berbeza. Tugas dan pengalaman kali ini membantu meningkatkan daya pemikiran saya dalam menganalisa serta melakukan

kerja dengan cepat, tepat dan tersusun.

SECTION 5

Impact on Learning



Evaluating Students' Ability in Achieving Learning Outcomes

Alternative assessment methods are often used to provide a more holistic picture of students' actual abilities in achieving learning outcomes. In the context of a community pharmacy clerkship course, alternative assessment methods can assess student abilities in the following ways:

1. Continuous Assessment:

1. **Logbook:** Students can compile evidence of their work, such as case reports, personal reflections, and other documents showing their progress and achievements throughout the clerkship period. This allows for a more comprehensive and continuous assessment compared to a single exam.
2. **Self-Reflective Writing:** Students record their daily experiences and reflect on their learning. This can help assess the development of critical thinking and self-awareness of students in pharmacy practice.

2. Practical Skills Assessment:

1. **OSCE (Objective Structured Clinical Examination):** This exam involves stations where students perform specific clinical tasks in controlled situations. It assesses practical skills and communication abilities in a realistic context.
2. **Workplace-Based Assessment:** Supervisors or preceptors assess students directly in the workplace. This includes assessment through direct observation, immediate feedback, and structured evaluation of student performance.

3. Project-Based Assessment:

1. **Community Projects or Interventions:** Students can engage in projects that have a direct impact on the community. This allows assessment of students' ability to apply theoretical knowledge to practical situations and measure the impact of their interventions.

4. Peer and Patient Feedback:

1. **Peer Assessment:** Peers provide feedback on collaboration, communication, and professional attitudes of students.
2. **Patient Feedback:** Patients who interact with students can provide feedback on how students communicate, demonstrate empathy, and deliver quality care.

Evaluating Students' Ability in Achieving Learning Outcomes

Advantages of Alternative Assessment Methods:

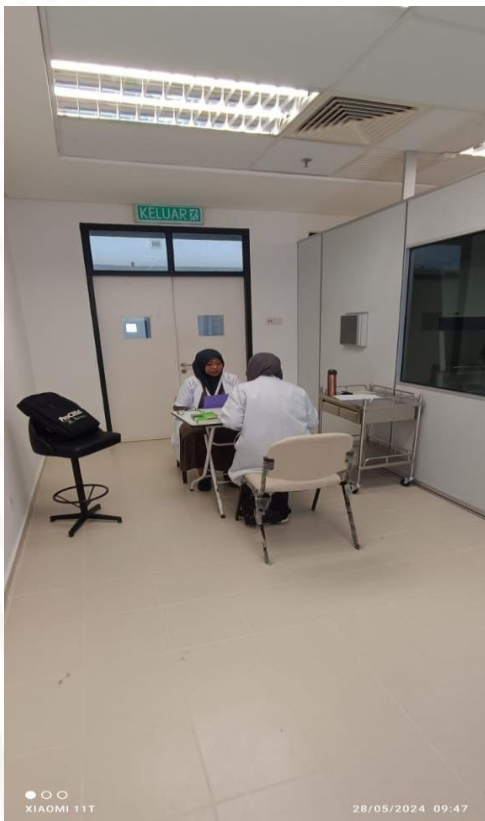
- Comprehensive:** Assess various aspects of students' skills and knowledge, not just based on theoretical exams.
- Realistic:** Assess students' abilities in situations more closely resembling real-world scenarios.
- Continuous Development:** Enable students to receive continuous feedback and improve themselves throughout the learning period.
- Self-Reflection:** Encourage students to critically reflect on their experiences and how they can enhance their performance.

Comparison with Conventional Methods:

- Theory Exams:** Written exams often only assess students' ability to recall facts and concepts. They may not always reflect their ability to apply knowledge in practical situations.
- Final Exams:** Large-scale exams at the end of a course can lead to high pressure and may not provide an accurate picture of students' continuous performance.
- Less Interaction:** Conventional methods may less assess communication and interpersonal skills, which are crucial in the field of pharmacy.

Overall, Alternative assessment methods such as OSCE, Community Service Projects, and Pharmacy Clerkship can demonstrate their effectiveness through cost and time savings, as well as benefits to stakeholders. OSCE reduces costs through the use of reusable stations and simultaneous assessment, while Community Service Projects optimize community resources and sponsorship. Pharmacy Clerkship saves on formal training costs and utilizes existing facilities. All these methods expedite learning through practical experience and the use of recurring resources. Benefits to stakeholders include practical experience for students, structured assessment for educators, enhanced institutional reputation, and community health service and awareness.

Evaluating Students' Ability in Achieving Learning Outcomes



Evaluating Students' Ability in Achieving Learning Outcomes



SECTION 6

Achievement & Recognition



PUBLICATION



APPENDICES



Appendix :

<https://drive.google.com/drive/folders/1hXnIJU7hHKKLdqBh-pVhWfOloe-7R0tK?usp=sharing> Community attachment

<https://drive.google.com/file/d/1K8AAQ0SUjp0KZ7TSig6i2j1Vun7aaOUA/view?usp=sharing> OSCE

<https://drive.google.com/drive/folders/110RTfgEEtIgMgekQpXb-AiymDsy8CyYG?usp=sharing> PROJECT

[https://drive.google.com/drive/folders/1hXnIJU7hHKKLdqBh-pVhWfOloe-7R0tK?usp=drive link](https://drive.google.com/drive/folders/1hXnIJU7hHKKLdqBh-pVhWfOloe-7R0tK?usp=drive%20link) ATTACHMENT

This video can be accessed at
<https://drive.google.com/drive/folders/1vdWHAIWW07IWeCAi6MZAUT5tWmzdi2YP?usp=sharing>