SEAMEO CENTRES POLICY RESEARCH NETWORK (CPRN) SUMMIT 2025

Building Bridges to a Sustainable Future: Inclusive Collaboration and Innovation in Education, Science, and Culture

Strengthening Quality Assurance in Postgraduate Training through Student Feedback

A Case Study from SEAMEO TROPMED Malaysia

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Introduction: IMR History

- Established in 1900 to address tropical diseases problem in Malaya
- Malaysia's oldest biomedical research institution
- IMR combined scientific research with academic training

Post-Independence Transformation (1957–1965)

- Positioned IMR as a national hub for:
  - Scientific education
  - Human capital development
  - Medical research

IMR
INSTITUTE FOR MEDICAL RESEARCH MALAYSIA

IMR as Regional Hub – SEAMEO TROPMED Malaysia (1965–Present)

- IMR appointed as SEAMEO TROPMED Regional Centre for Microbiology, Parasitology & Entomology in 1967
- Launched postgraduate Diploma in Applied Parasitology & Entomology (DAP&E) in 1970
- First Dean: Prof. Dr. A. Sandosham
- Expansion of academic programs
- Took over Postgraduate Diploma in Medical Microbiology (DMM) post-Vietnam War-since 1978
- Aims to build regional capacity in tropical medicine and public health.

Photograph of Tun Hussein Onn, then Minister of Education, conferring diplomas to international graduates of Postgraduate DAP&E (1972)

Group Photo of the first cohorts

The 1st Postgraduate Diploma Course in Applied Parasitology and Entomology (DAP&E), Institute for Medical Research, Kuala Lumpur, Malaysia,
6 April 1970 – 30 September 1970

The 1st Postgraduate Diploma Course in Medical Microbiology (DMM), Institute for Medical Research, Kuala Lumpur, Malaysia,
2 October 1978 – 16 March 1979

Introduction

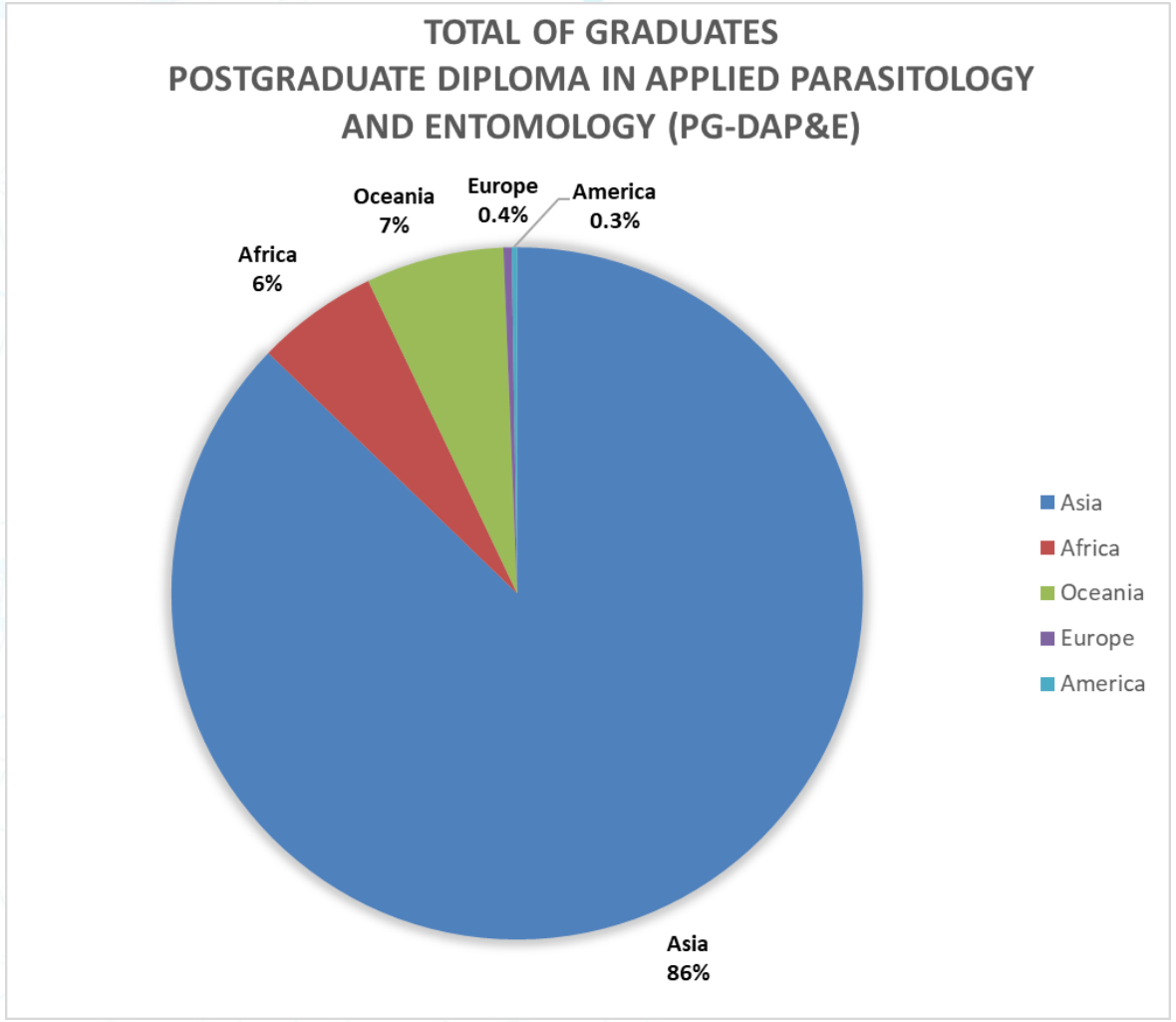
Background and Rationale

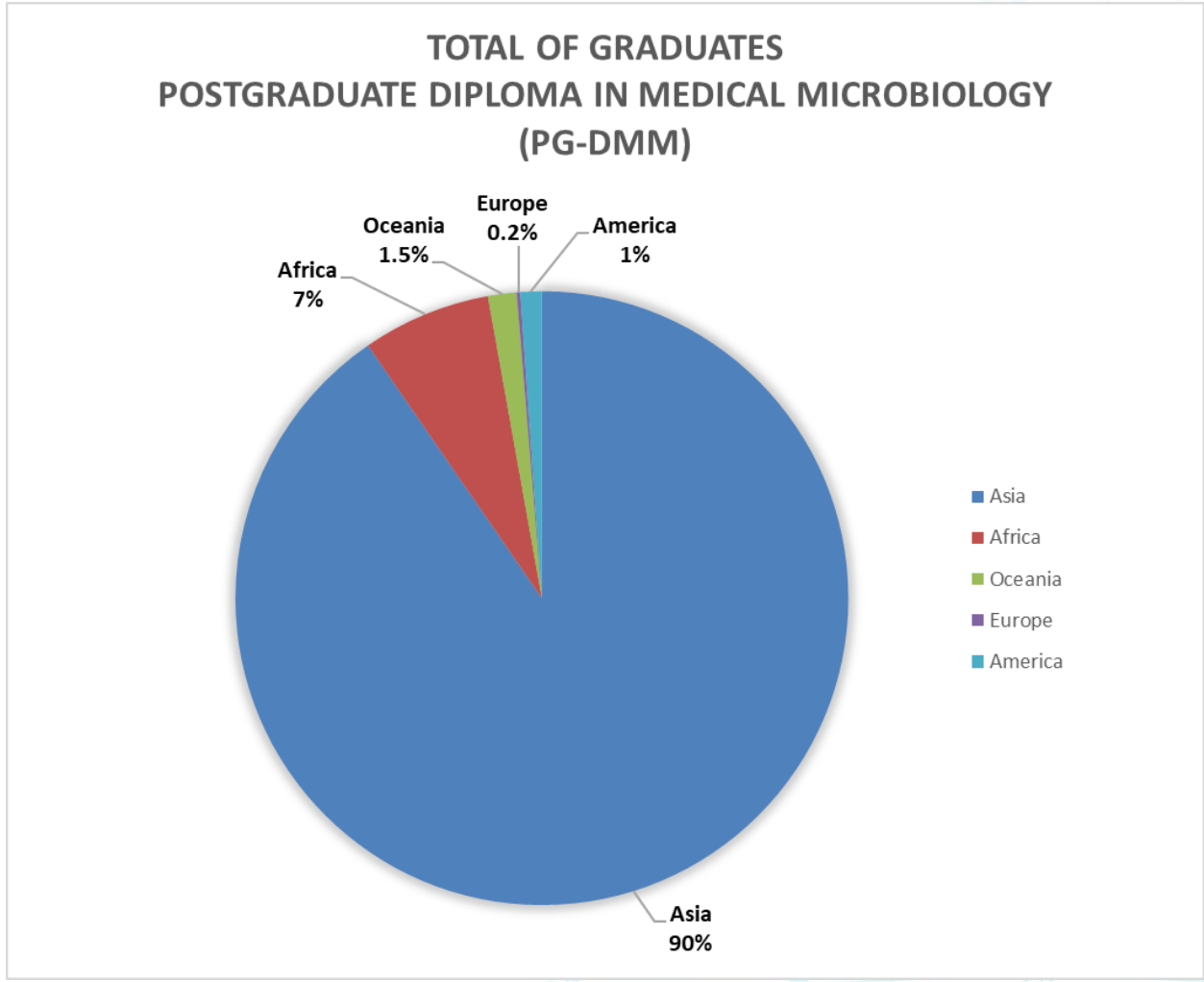
🌏 Context

SEAMEO TROPMED Malaysia serves as a regional hub for tropical medicine training in parasitology, entomology and microbiology offering two postgraduate diploma programs:

1. Postgraduate Diploma in Applied Parasitology & Entomology (DAP&E) (Since 1970-present).
   - 701 graduates for Postgraduate DAP&E from 53 countries

2. Postgraduate Diploma in Medical Microbiology (DMM) (Since 1978-present).
   - 556 graduates for Postgraduate DMM from 60 countries


TOTAL OF GRADUATES
POSTGRADUATE DIPLOMA IN APPLIED PARASITOLOGY AND ENTOMOLOGY (PG-DAP&E)
Oceania 7%
Europe 0.4%
America 0.3%
Africa 6%
Asia 86%
Asia
Africa
Oceania
Europe
America


TOTAL OF GRADUATES
POSTGRADUATE DIPLOMA IN MEDICAL MICROBIOLOGY (PG-DMM)
Oceania 1.5%
Europe 0.2%
America 1%
Africa 7%
Asia 90%
Asia
Africa
Oceania
Europe
America

Introduction

Background and Rationale

Why This Study?

- In 2019, the Institute for Medical Research (IMR) was relocated from Jalan Pahang to the new National Institutes of Health (NIH) Complex, in Setia Alam offering upgraded facilities.
- The post-COVID-19 period presented an opportunity to reassess and strengthen the structure of postgraduate programs.
- In 2022, the first cohort of postgraduate diploma programs were conducted at the new IMR facilities in NIH Setia Alam.
- A new strategic direction was introduced to elevate existing postgraduate diplomas to Master's-level accredited programs in Malaysia, enhancing its competitiveness and relevance.

Introduction: Rationale

📌 Student Feedback as a Quality Assurance Mechanism

Student feedback is a critical driver of quality assurance, providing direct insights into:

1. Real-time assessment of teaching quality and curriculum relevance
2. Identification of gaps between current delivery and global standards
3. Systematic feedback mechanisms enable data-driven improvements, ensuring programs meet:

- Student expectations and workforce demands.
- Accreditation benchmarks (e.g., Master's-level equivalency).

🔍 Critical Gap & Opportunity

The post-relocation transition to NIH's advanced facilities, combined with post-pandemic recovery phases creates an ideal moment to leverage students feedbacks for long-term program enhancement.

Objective of the Study

- To examine patterns in structured student feedback to support evidence-based improvements in postgraduate training and quality assurance.

Methodology

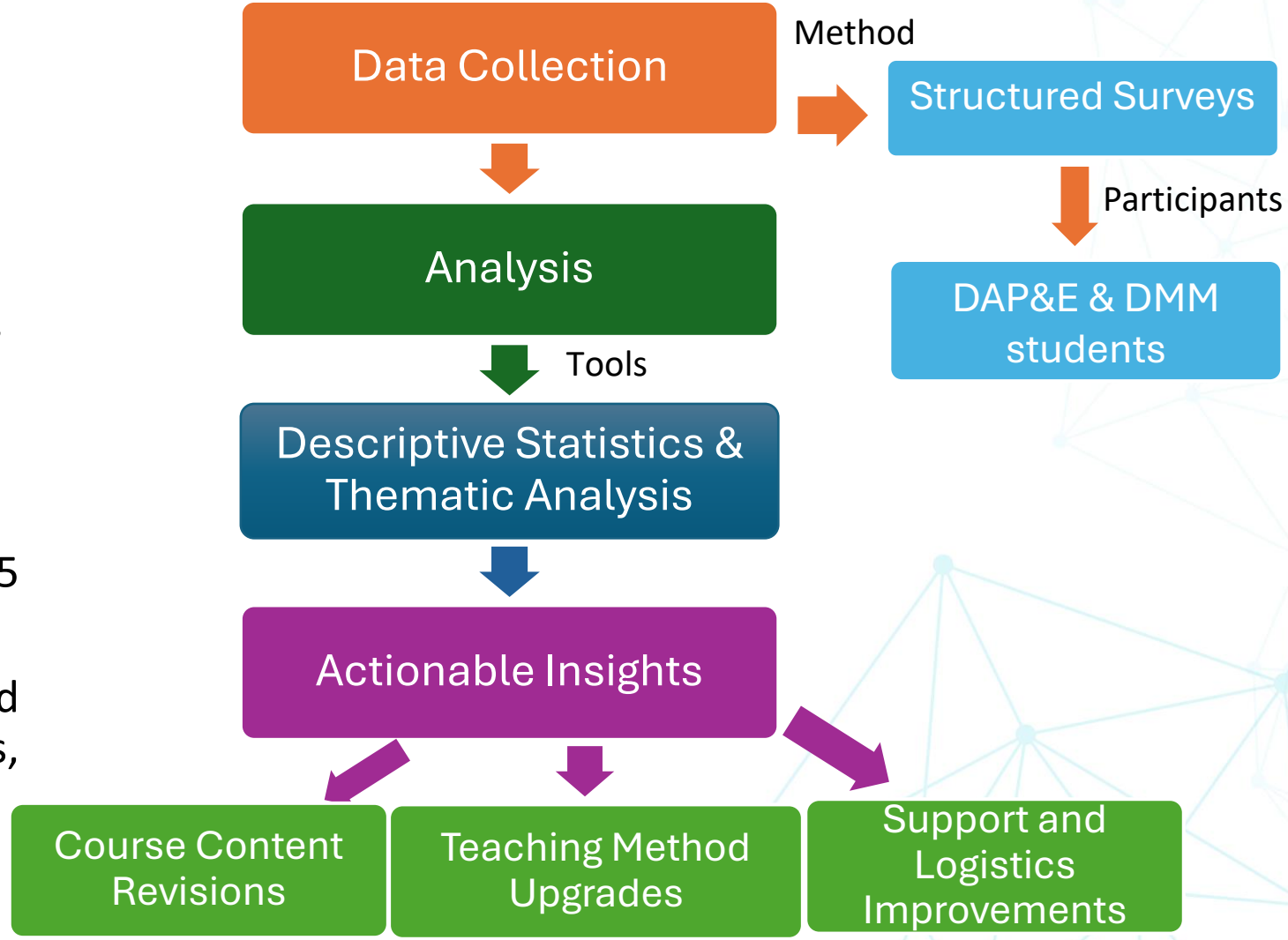
Our Approach:

1. Data collection

- Participants: Students enrolled in the postgraduate diploma programs, the DAP&E and DMM postgraduate students, (2022 and 2023 cohorts).
- Tool: Standardized evaluation form comprising:

✅ Quantitative Section : Scoring across 5 main key domains:

✍️ Qualitative Section : Open-ended questions for suggestions, comments, and overall feedback.



Methodology

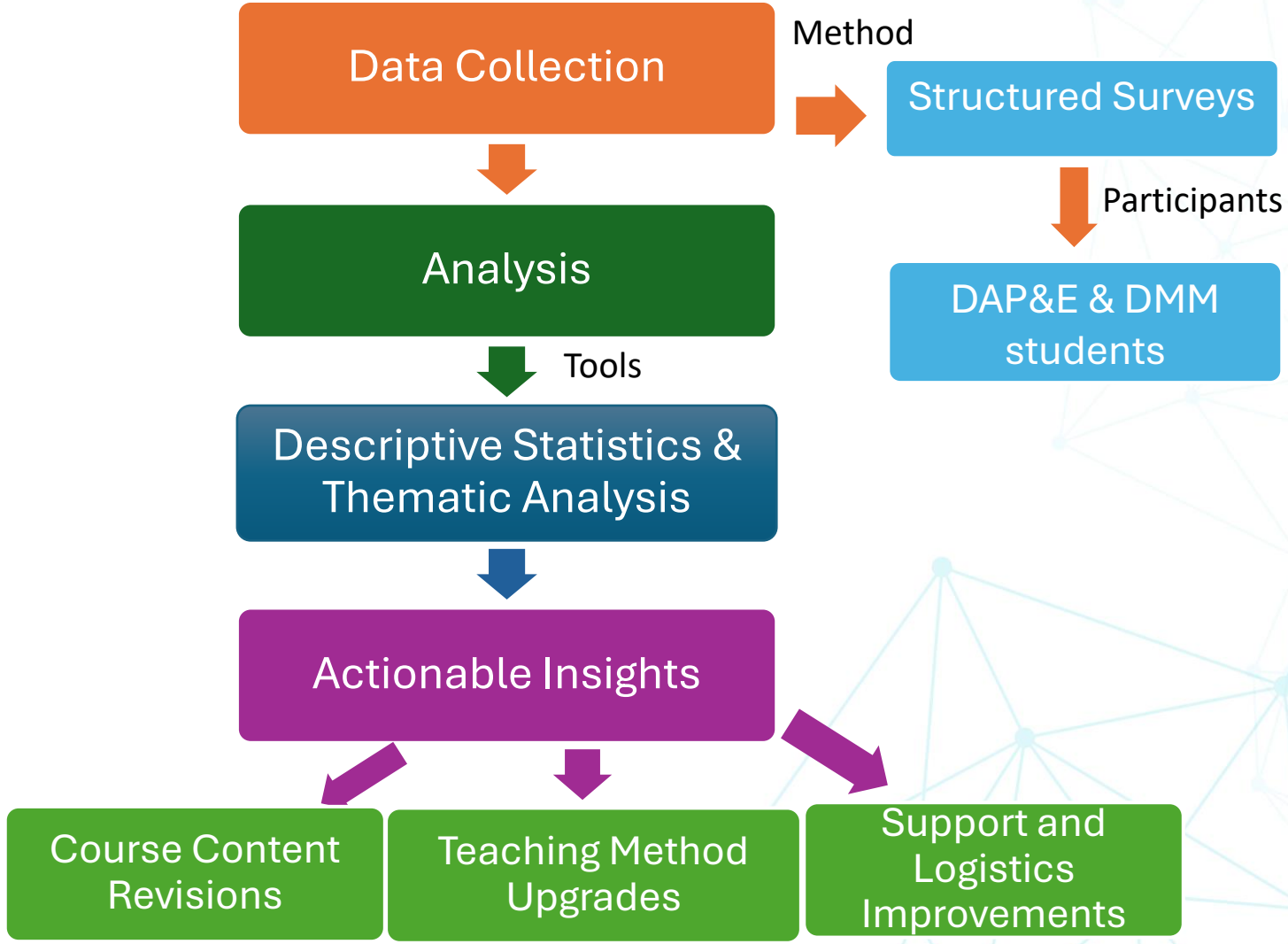
2. Data Analysis:

📊 Quantitative Data

- Analyzed using descriptive statistics to determine satisfaction levels and trends.

✍️ Qualitative Data

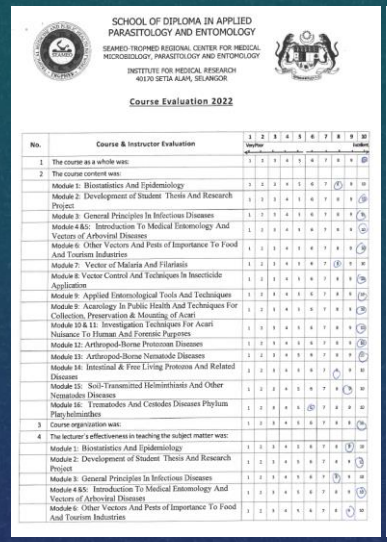
- Analyzed using thematic analysis to identify recurring feedback and improvement areas.



Methodology

The Postgraduate DAP&E program

- Structured survey used to collect feedback from the students(2022-2023)
- The survey consists of both quantitative and qualitative components.
- Data were collected in two consecutive years: 2022 & 2023



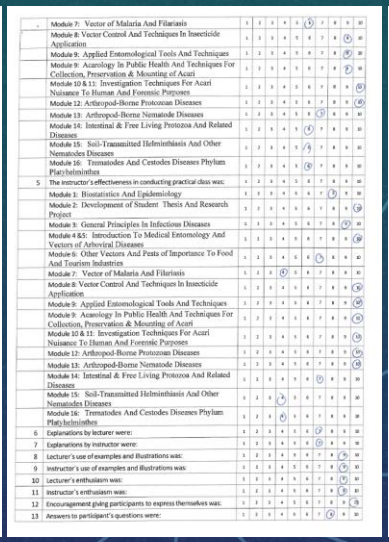
SCHOOL OF DIPLOMA IN APPLIED PARASITOLOGY AND ENTOMOLOGY

SEAMEO-TROPMED REGIONAL CENTER FOR MEDICAL MICROBIOLOGY, PARASITOLOGY AND ENTOMOLOGY

INSTITUTE FOR MEDICAL RESEARCH 40170 SETIA ALAM, SELANGOR

Course Evaluation 2022

No.	Course & Instructor Evaluation	1 Very Poor	2	3	4	5	6	7	8	9	10 Excellent
1	The course as a whole was:										
2	The course content was:										
	Module 1: Biostatistics And Epidemiology										
	Module 2: Development of Student Thesis And Research Project										
	Module 3: General Principles In Infectious Diseases										
	Module 4 &5: Introduction To Medical Entomology And Vectors of Arboviral Diseases										
	Module 6: Other Vectors And Pests of Importance To Food And Tourism Industries										
	Module 7: Vector of Malaria And Filariasis										
	Module 8: Vector Control And Techniques In Insecticide Application										
	Module 9: Applied Entomological Tools And Techniques										
	Module 9: Acarology In Public Health And Techniques For Collection, Preservation & Mounting of Acari										
	Module 10 & 11: Investigation Techniques For Acari Nuisance To Human And Forensic Purposes										
	Module 12: Arthropod-Borne Protozoan Diseases										
	Module 13: Arthropod-Borne Nematode Diseases										
	Module 14: Intestinal & Free Living Protozoa And Related Diseases										
	Module 15: Soil-Transmitted Helminthiasis And Other Nematodes Diseases										
	Module 16: Trematodes And Cestodes Diseases Phylum Platyhelminthes										
3	Course organization was:										
4	The lecturer's effectiveness in teaching the subject matter was:										
	Module 1: Biostatistics And Epidemiology										
	Module 2: Development of Student Thesis And Research Project										
	Module 3: General Principles In Infectious Diseases										
	Module 4 &5: Introduction To Medical Entomology And Vectors of Arboviral Diseases										
	Module 6: Other Vectors And Pests of Importance To Food And Tourism Industries										



	Module 7: Vector of Malaria And Filariasis										
	Module 8: Vector Control And Techniques In Insecticide Application										
	Module 9: Applied Entomological Tools And Techniques										
	Module 9: Acarology In Public Health And Techniques For Collection, Preservation & Mounting of Acari										
	Module 10 & 11: Investigation Techniques For Acari Nuisance To Human And Forensic Purposes										
	Module 12: Arthropod-Borne Protozoan Diseases										
	Module 13: Arthropod-Borne Nematode Diseases										
	Module 14: Intestinal & Free Living Protozoa And Related Diseases										
	Module 15: Soil-Transmitted Helminthiasis And Other Nematodes Diseases										
	Module 16: Trematodes And Cestodes Diseases Phylum Platyhelminthes										
5	The instructor's effectiveness in conducting practical class was:										
	Module 1: Biostatistics And Epidemiology										
	Module 2: Development of Student Thesis And Research Project										
	Module 3: General Principles In Infectious Diseases										
	Module 4 &5: Introduction To Medical Entomology And Vectors of Arboviral Diseases										
	Module 6: Other Vectors And Pests of Importance To Food And Tourism Industries										
	Module 7: Vector of Malaria And Filariasis										
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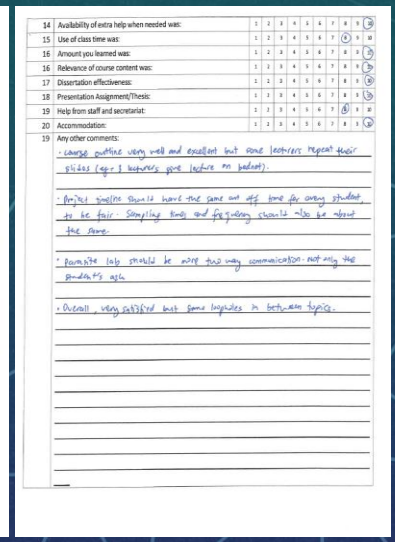
	Module 14: Intestinal & Free Living Protozoa And Related Diseases										
	Module 15: Soil-Transmitted Helminthiasis And Other Nematodes Diseases										
	Module 16: Trematodes And Cestodes Diseases Phylum Platyhelminthes										
6	Explanations by lecturer were:										
7	Explanations by instructor were:										
8	Lecturer's use of examples and illustrations was:										
9	Instructor's use of examples and illustrations was:										
10	Lecturer's enthusiasm was:										
11	Instructor's enthusiasm was:										
12	Encouragement giving participants to express themselves was:										
13	Answers to participant's questions were:										



14	Availability of extra help when needed was:										
15	Use of class time was:										
16	Amount you learned was:										
16	Relevance of course content was:										
17	Dissertation effectiveness:										
18	Presentation Assignment/Thesis:										
19	Help from staff and secretariat:										
20	Accommodation:										

19 Any other comments:

- course outline very well and excellent but some lecturers repeat their slides (eg: 3 lecturers give lecture on patient).
- Project timeline should have the same cut off time for every student, to be fair. Sampling time and frequency should also be about the same.
- Supervisor lab should be more two way communication - not only the students ask.
- Overall, very satisfied but some irregulars in both main topics.

5 Main Domains of Evaluation

- Course Content & Structure
- Teaching & Instruction Effectiveness
- Student Engagement & Support
- Learning Outcomes & Relevance
- Logistics & Resources

No	Evaluation Domain	Evaluation Metrics
1.	Course Content & Structure	a) Whole course (Overall satisfaction) b) Course content by modules c) Course organization (e.g., Scheduling, logistics)
2.	Teaching & Instruction Effectiveness	a) Lecturer effectiveness (Subject delivery, explanations, use of examples) b) Instructor effectiveness (Practical sessions, demonstrations)
3.	Student Engagement & Support	a) Encouragement for student participation b) Responsiveness to questions c) Availability of extra help (additional academic support)
4.	Learning Outcomes & Relevance	a) Amount learned (Knowledge gained from the course) b) Relevance of content (to students' professional needs) c) Dissertation/presentation effectiveness
5.	Logistics & Resources	a) Accommodation b) Class time management (Class schedule and time management) c) Teaching tools

Name of Modules & Program Structure

Postgraduate Diploma in Applied Parasitology and Entomology (DAP&E)

Module No	Name of Module
Module 1	Epidemiology and Biostatistics
Module 2	Development of Student Thesis and Research Project
Module 3	General Principles in infectious diseases
Module 4	Introduction to Medical Entomology
Module 5	Vector of Arboviral Diseases
Module 6	Other Vectors and Pests of Importance to Food and Tourism Industries
Module 7	Vector of Malaria and Filariasis
Module 8	Vector Control and Techniques in Insecticide Application
Module 9	Applied Entomological Tools and Techniques
Module 10	Acarology in Public Health
Module 11	Field Techniques in Acarology and Processing Animals for Acari
Module 12	Arthropod-borne Protozoan Diseases
Module 13	Arthropod-borne Nematode Diseases
Module 14	Intestinal & Free-Living Protozoa and Related Diseases
Module 15	Soil-transmitted helminthiasis and other Nematode Diseases
Module 16	Trematode and Cestode Diseases

Programme Structure Overview

Total Credit Hours: 30

Schedule: Classes are conducted from Monday to Friday. Saturdays are designated for self-learning time.

Course Methodology :

📚 Lectures, demonstrations, and hands-on laboratory sessions

🌿 Field trips and study visits to relevant institutions or sites

🧪 Short research projects to enhance critical thinking and analytical skills

📝 Post-module assessments and a final examination. Includes both theory and practical evaluations

Name of Modules & Program Structure

Postgraduate Diploma in Medical Microbiology (DMM)

Module No	Name of Module
Module 1	Epidemiology and Biostatistics
Module 2	Development of Student Thesis and Research Project
Module 3	Immunology
Module 4	Molecular Biology and Recombinant DNA
Module 5	Bacteriology
Module 6	Mycology
Module 7	Virology

Programme Structure Overview

Total Credit Hours: 30

Schedule: Classes are conducted from Monday to Friday. Saturdays are designated for self-learning time.

Course Methodology :

📚 Lectures, demonstrations, and hands-on laboratory sessions

🌿 Field trips and study visits to relevant institutions or sites

📝 Dissertation preparation and individual assignments

📘 Post-module assessments and a final examination, consisting of both theory and practical components

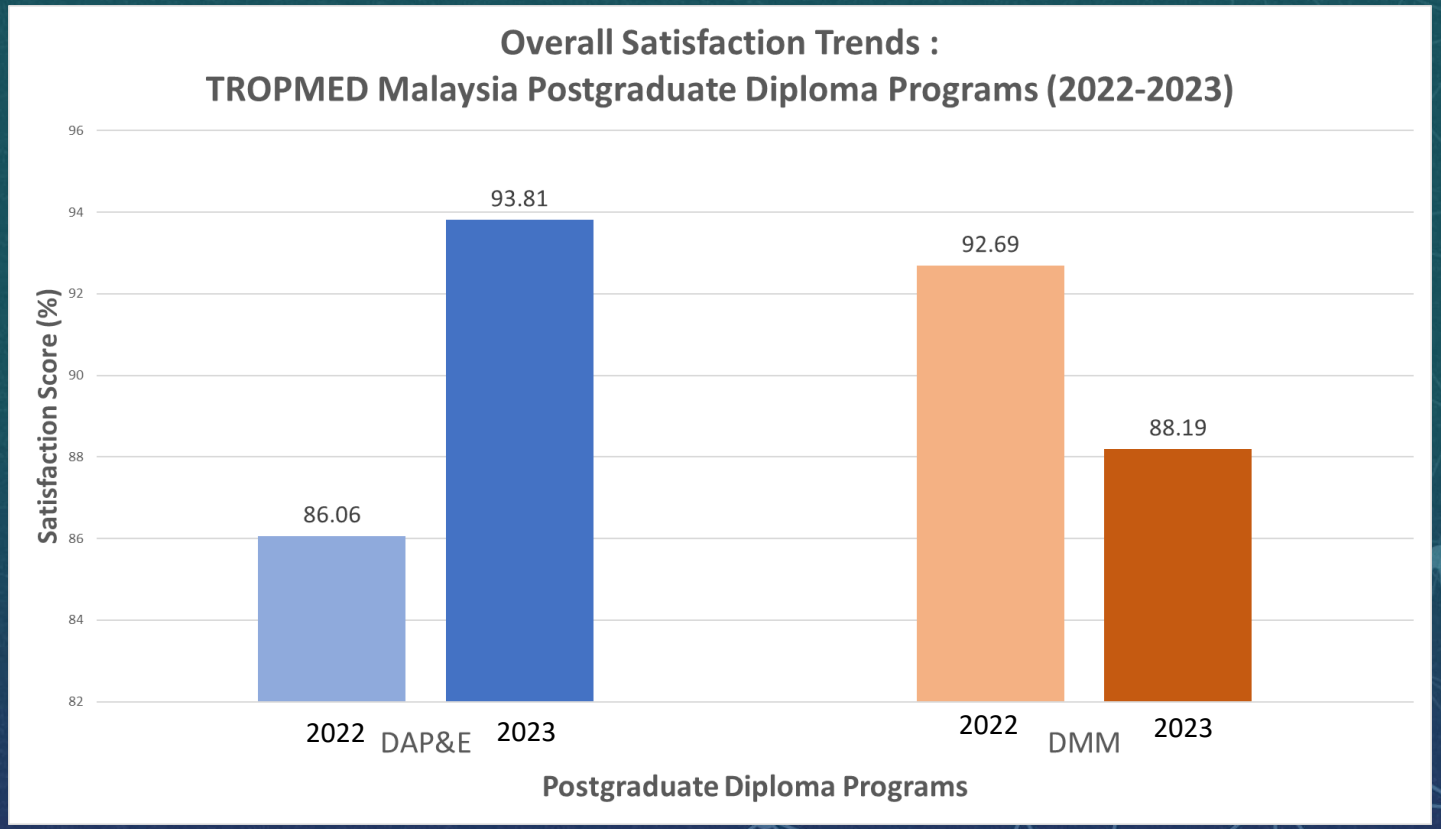
Results: Demographic of students for 2022 & 2023

Category	2022		2023	
	DAP&E	DMM	DAP&E	DMM
Number of students	12	9	6	9
Country of Origin	Thailand (1) Philippines (1) Malaysia (10)	Cambodia (1) Lao PDR (1) Malaysia (7)	Lao PDR (1) Philippines (1) Samoa (1) Malaysia (3)	Cambodia (1) Philippines (1) Malaysia (7)
Gender	Male (6), Female (6)	Male (5), Female (4)	Female (6)	Male (2), Female (7)
Age Range (years)	30-40	32-41	23-39	26-46
Academic Background	Bachelor's Degree (10) Master's Degree (2)	Bachelor's Degree (8) Diploma (1)	Bachelor's Degree (6)	Bachelor's Degree (9)
Profession	Research Officer/ Science Officer (12) Medical Officer (1) Lecturer (1)	Research Officer/ Science Officer (3) Medical Officer (4) Lab Technologist (1)	Research Officer/ Science Officer (3) Medical Officer (1) Lab Technologist (2)	Research Officer/ Science Officer (6) Medical Officer (3)

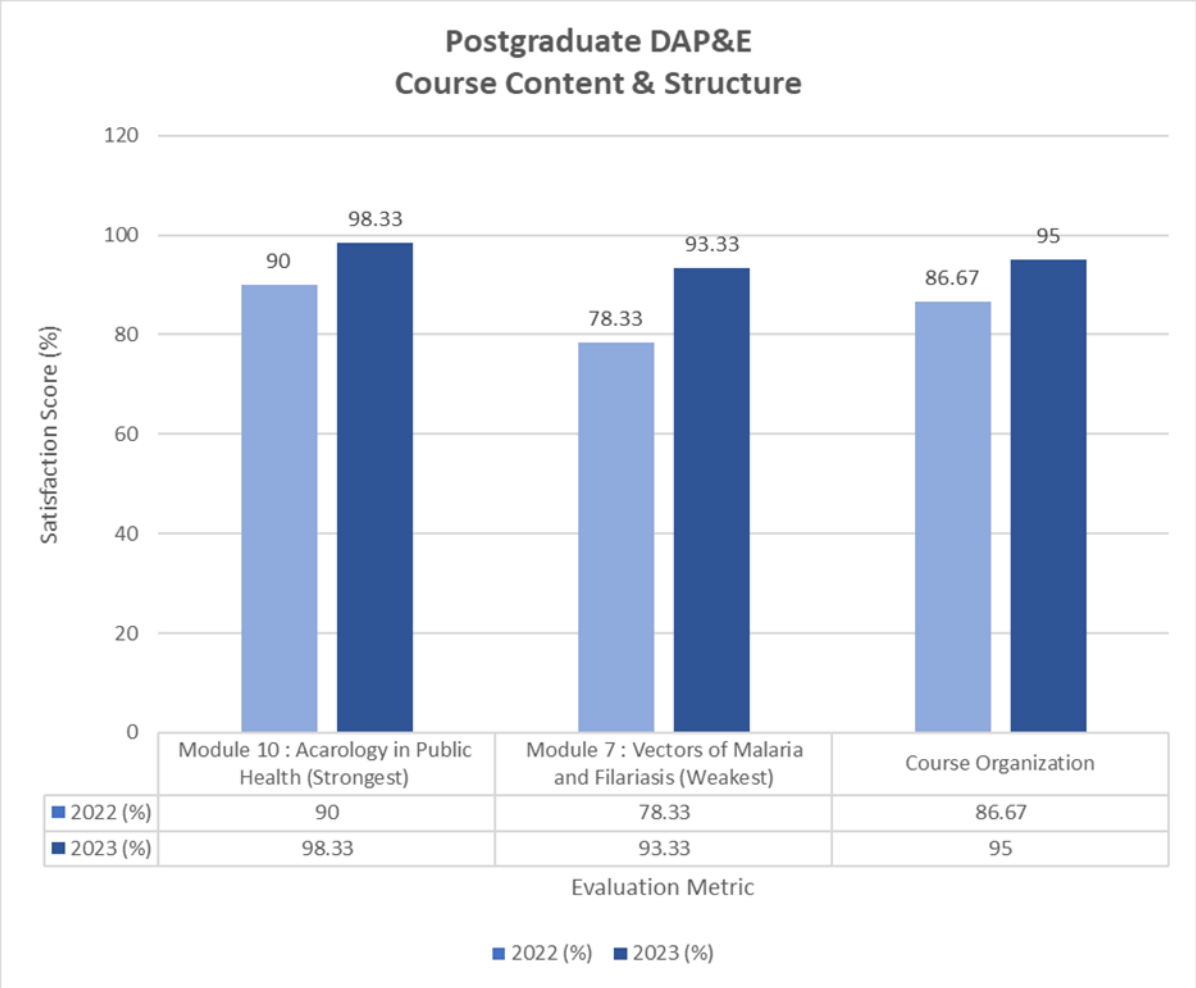
Result : 1) Course Content & Structure
a) Whole course (Overall Satisfaction)

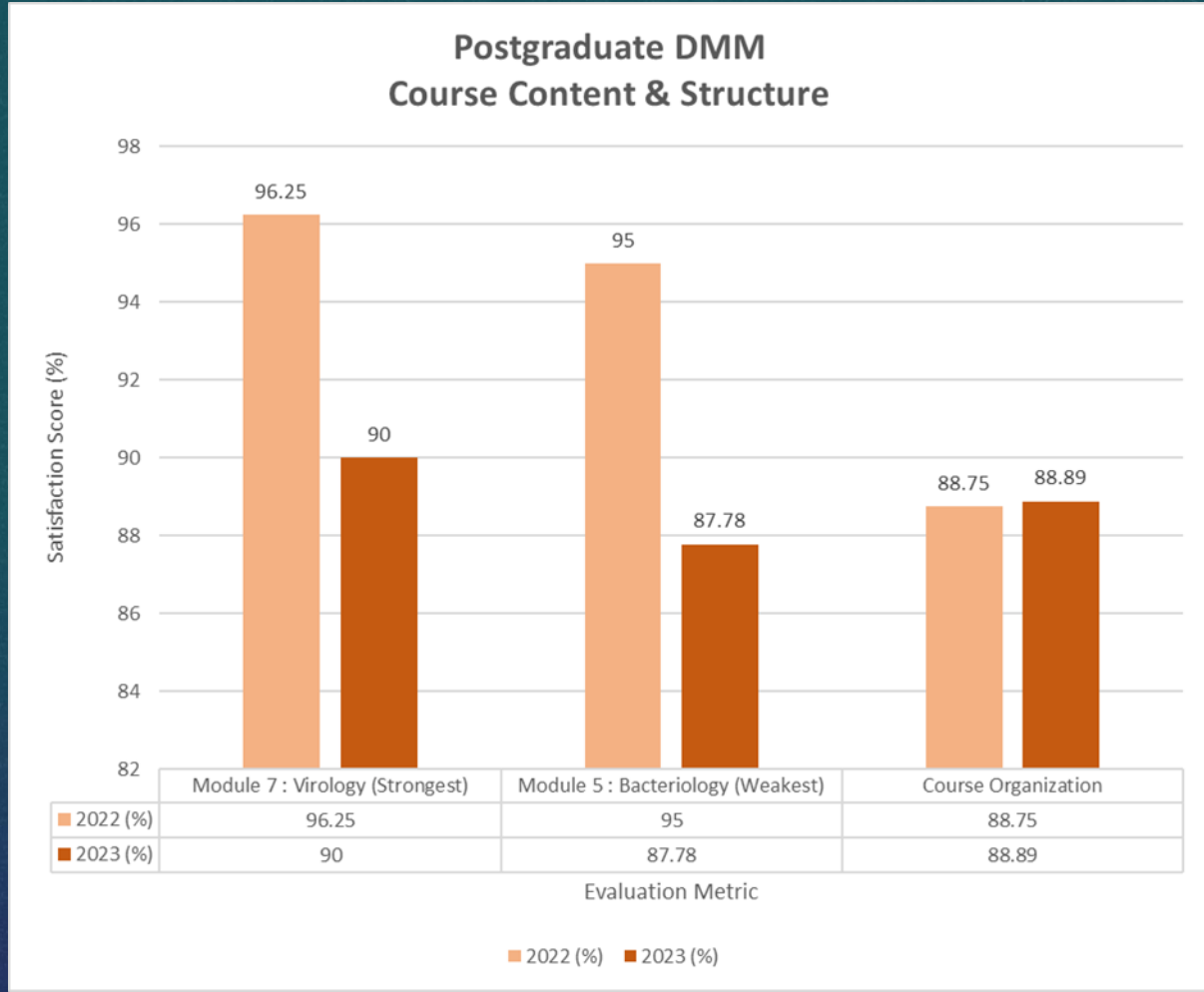
Overall Satisfaction Trends (2022–2023 cohorts):

Postgraduate Programs	2022 (%)	2023 (%)
DAP&E	86.06	93.81
DMM	92.69	88.19

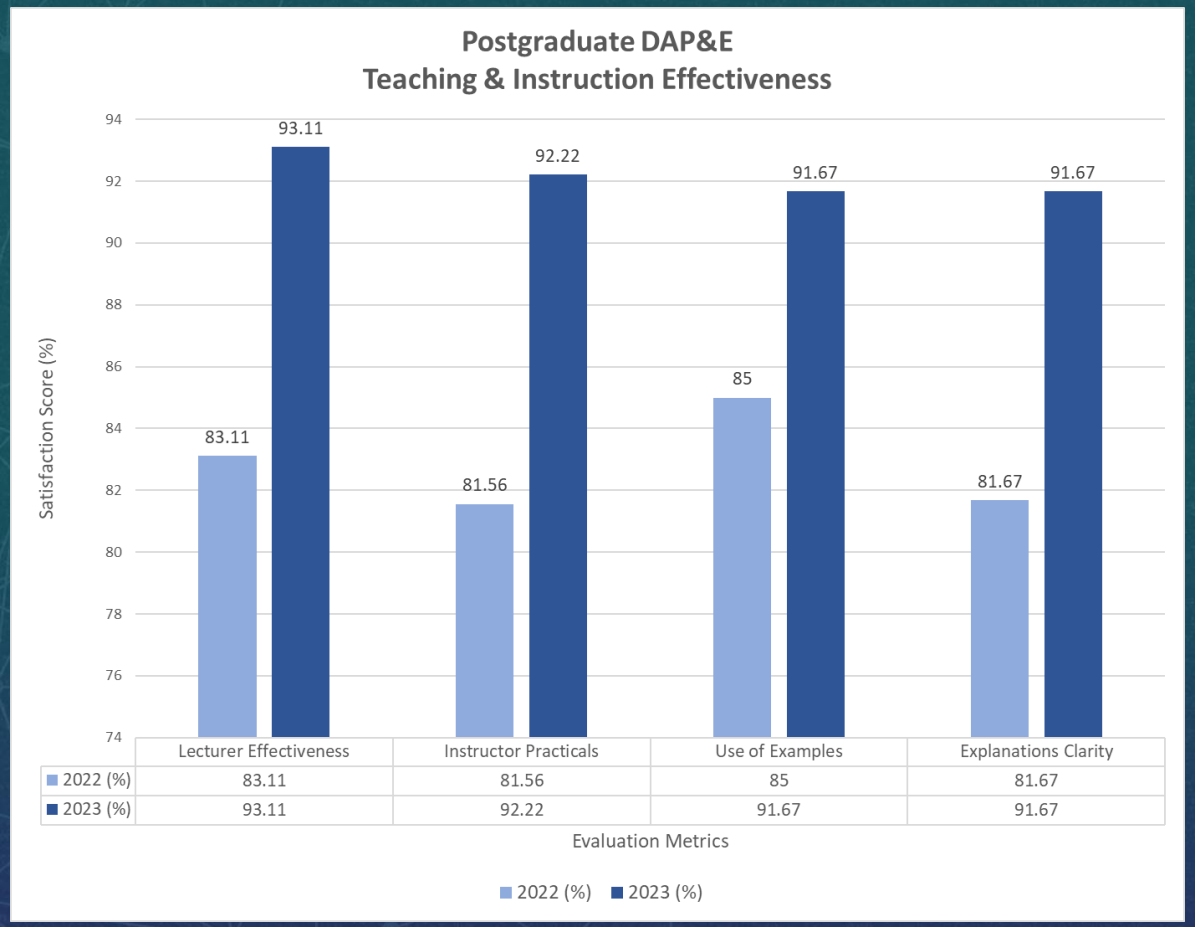


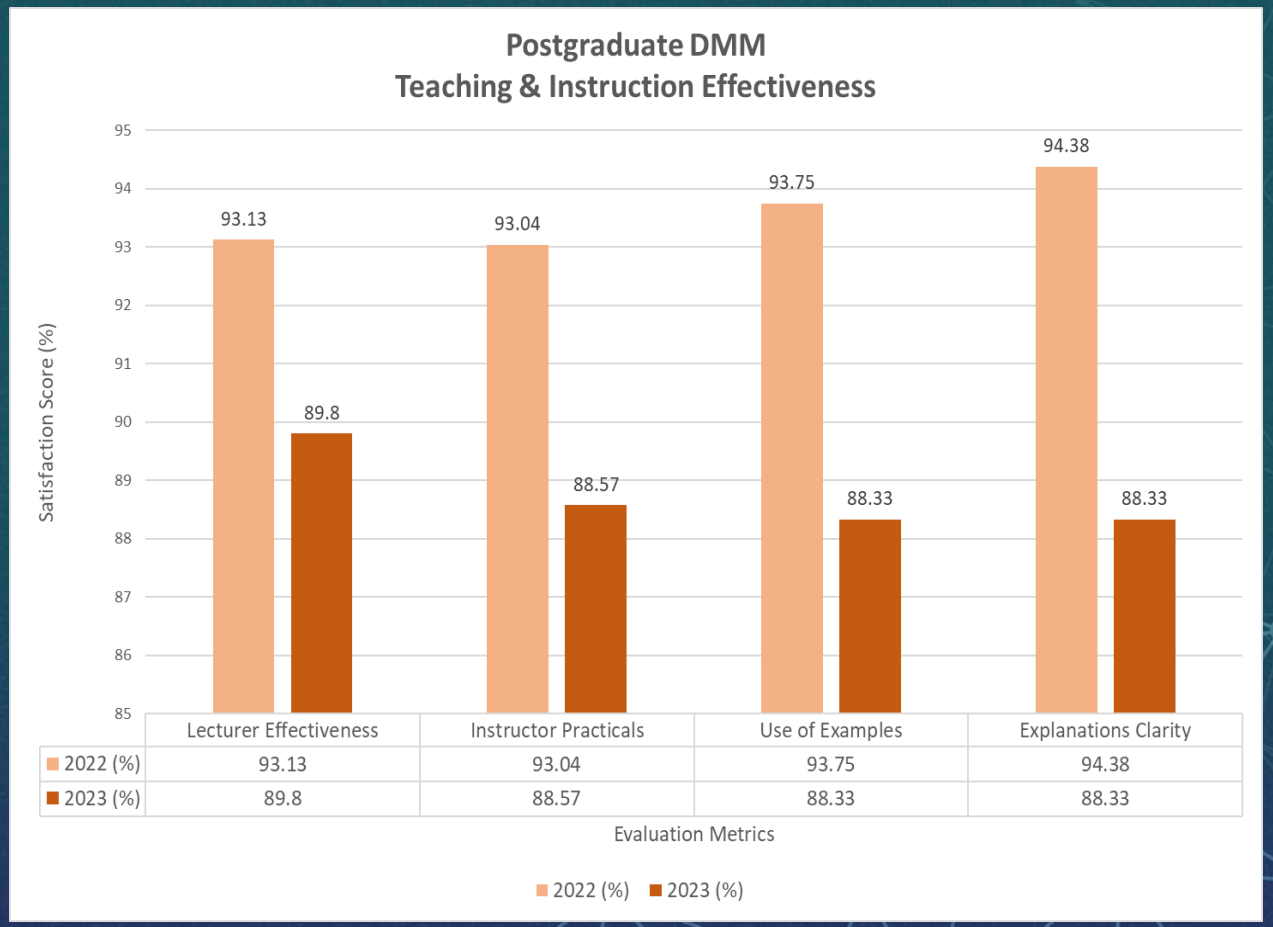
Result : 1.) Course Content & Structure
b) Course content by modules c) Course organization



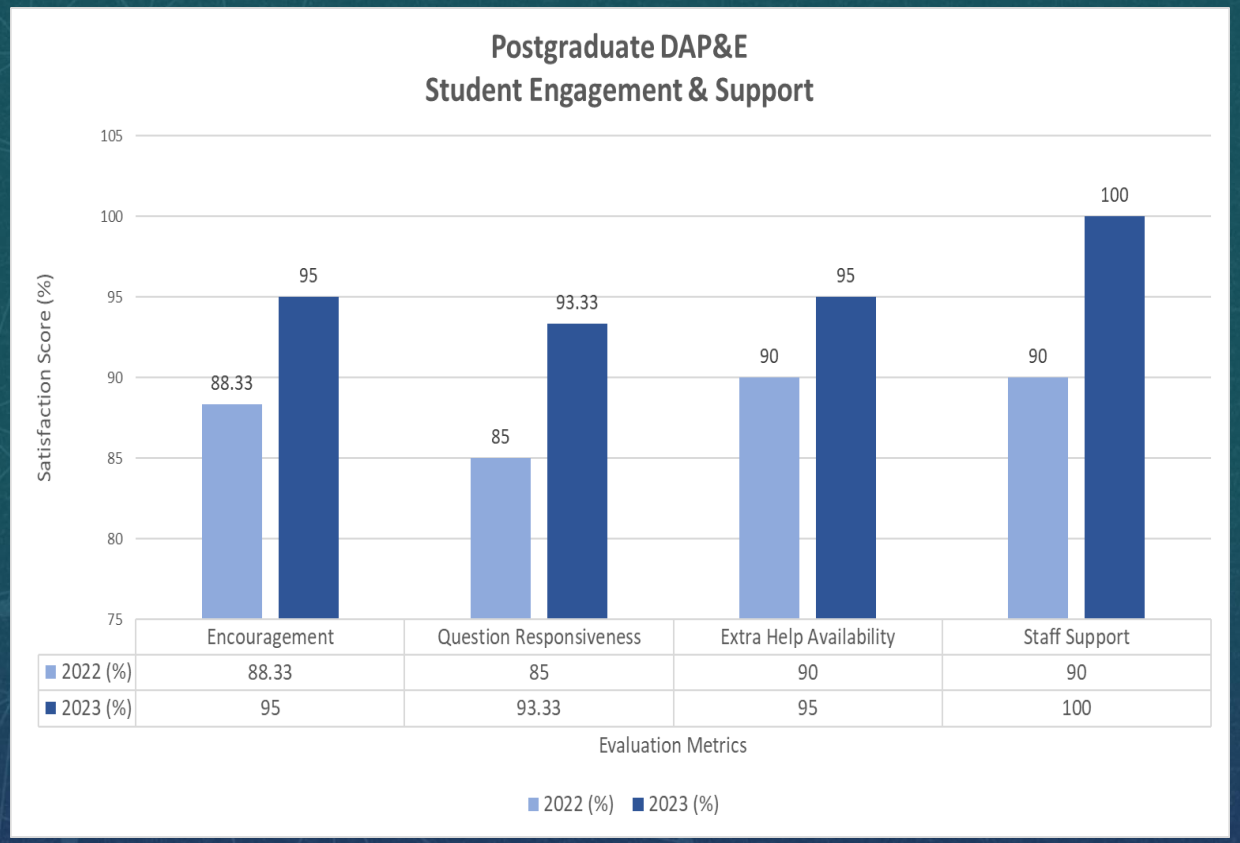


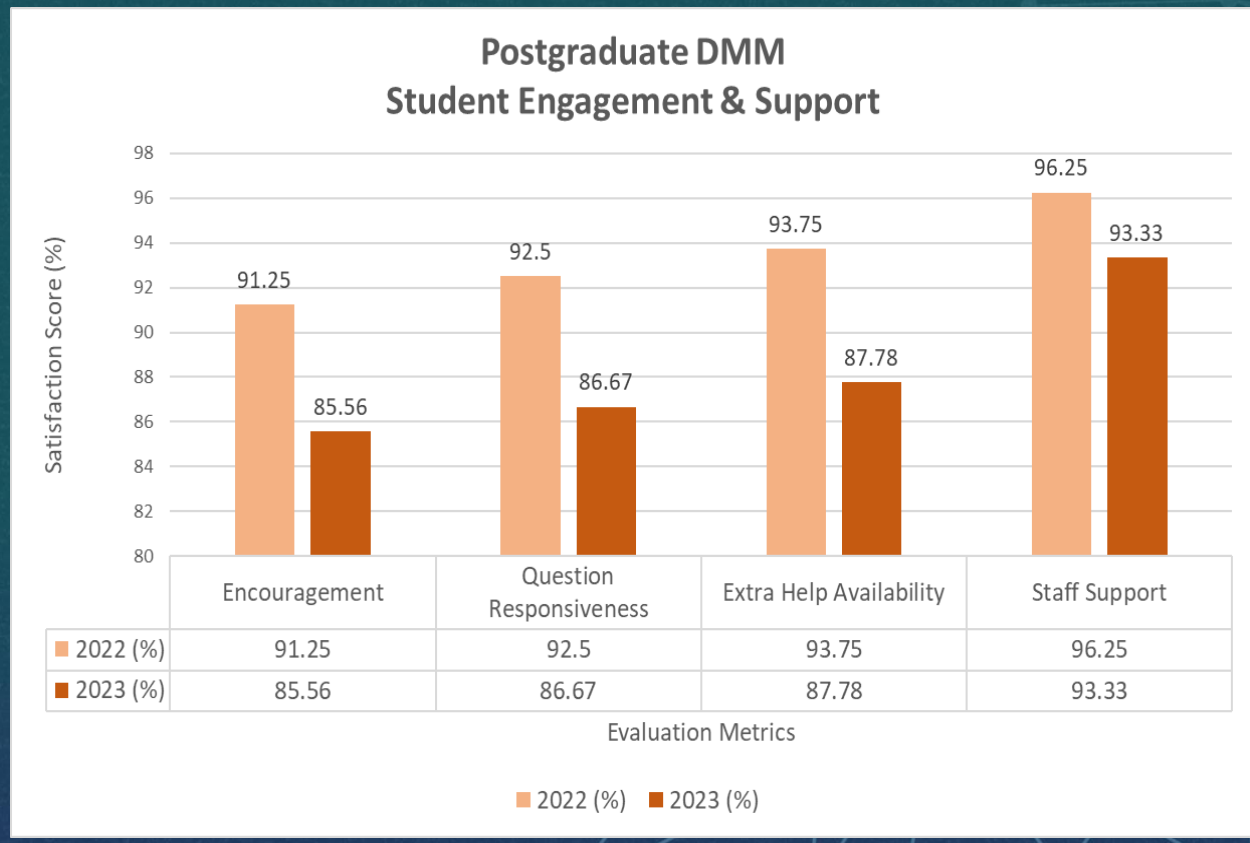
Result : 2) Teaching & Instruction Effectiveness



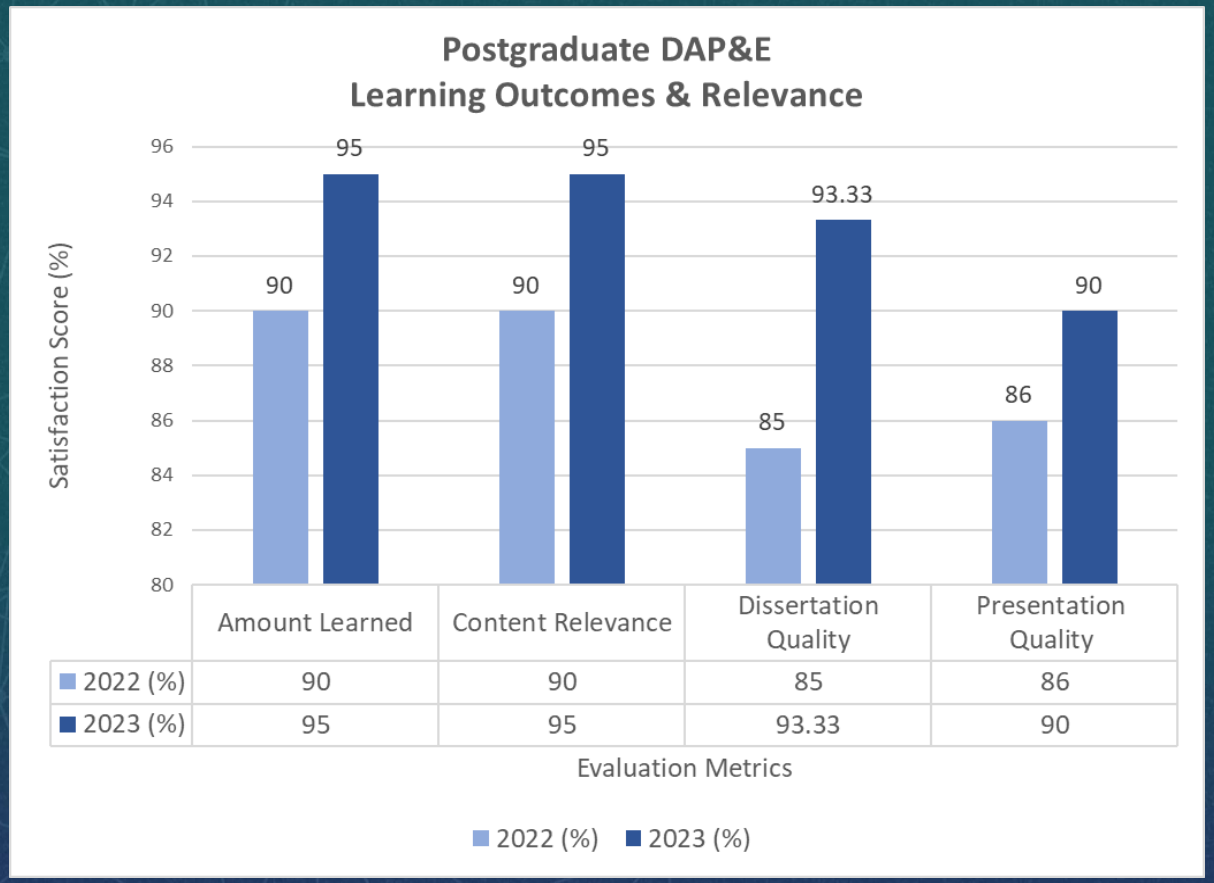


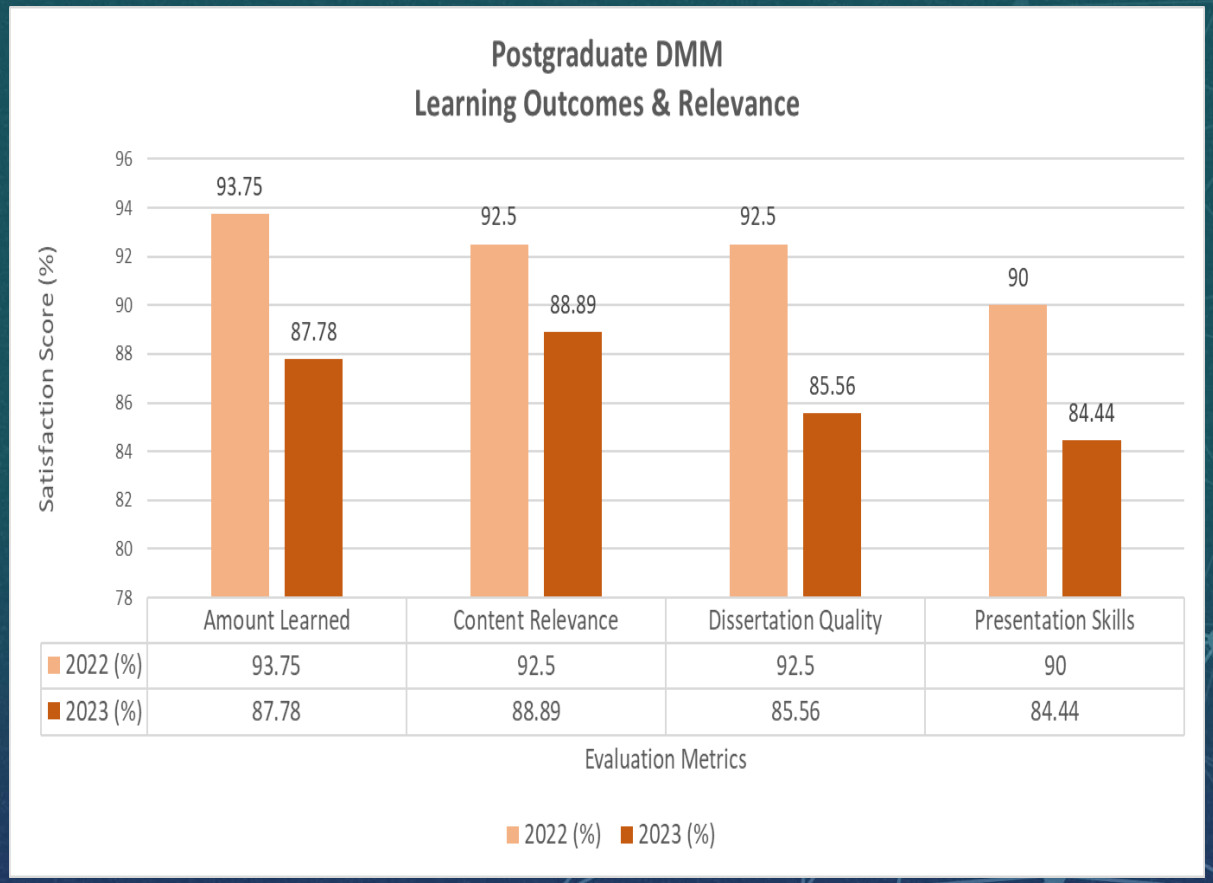
Result : 3.) Student Engagement & Support



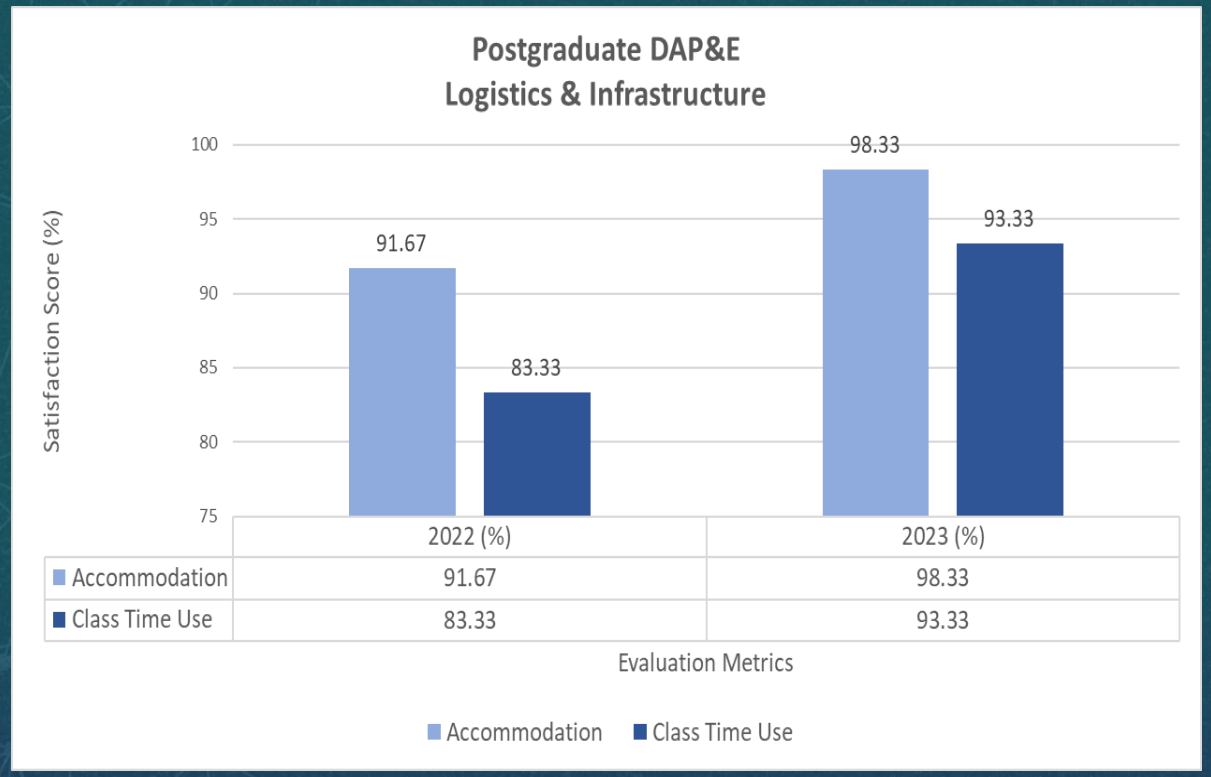


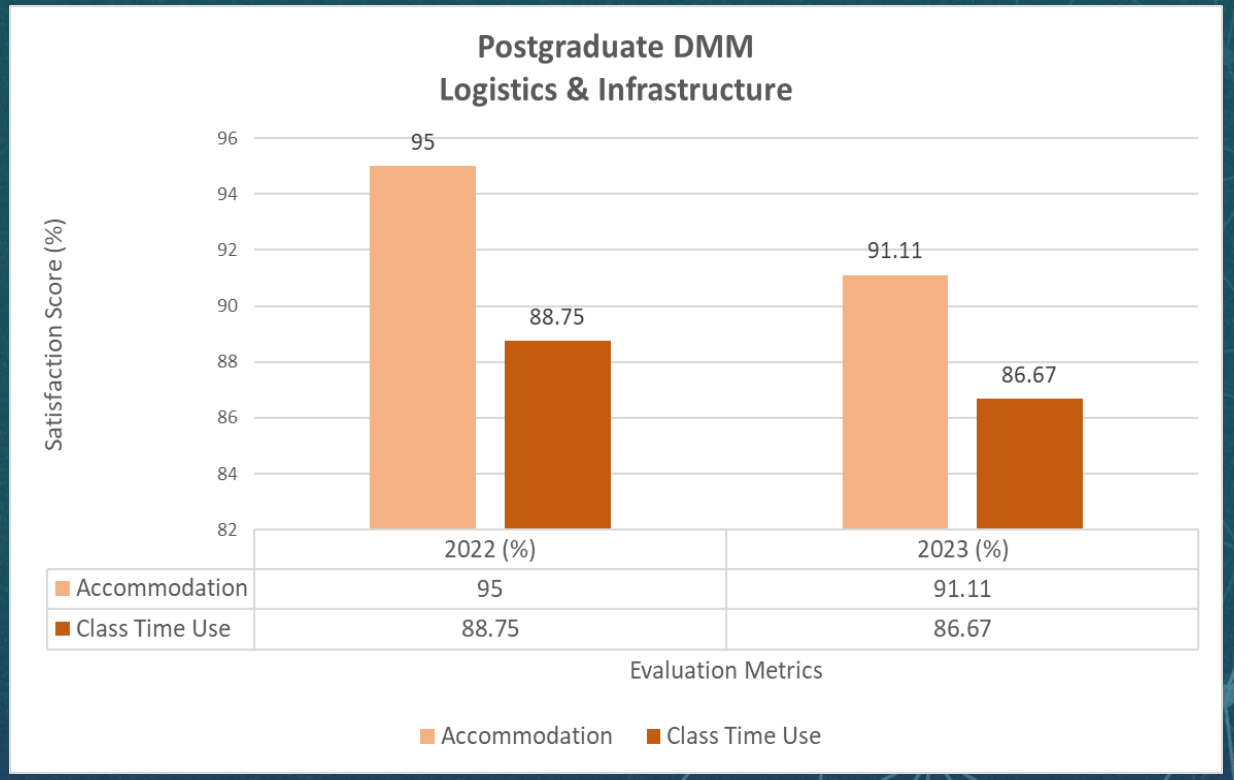
Result : 4.) Learning Outcomes & Relevance



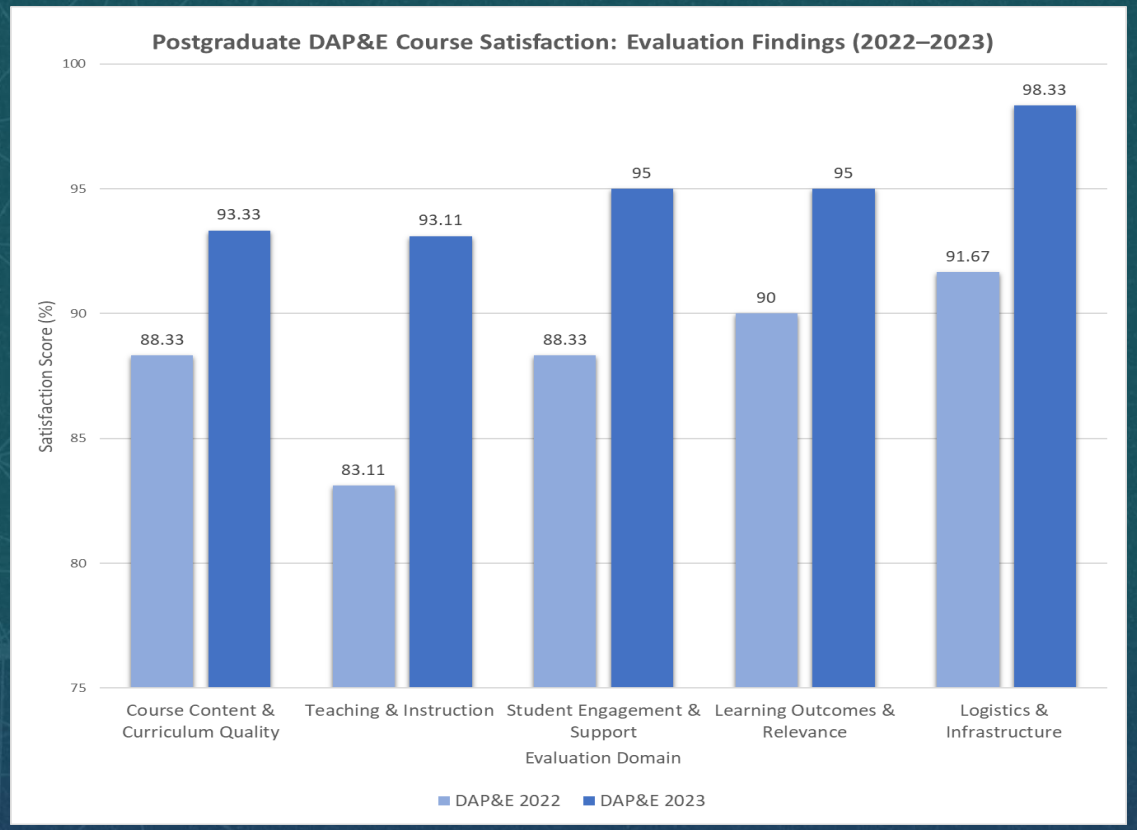


Result : 5.) Logistics & Infrastructure

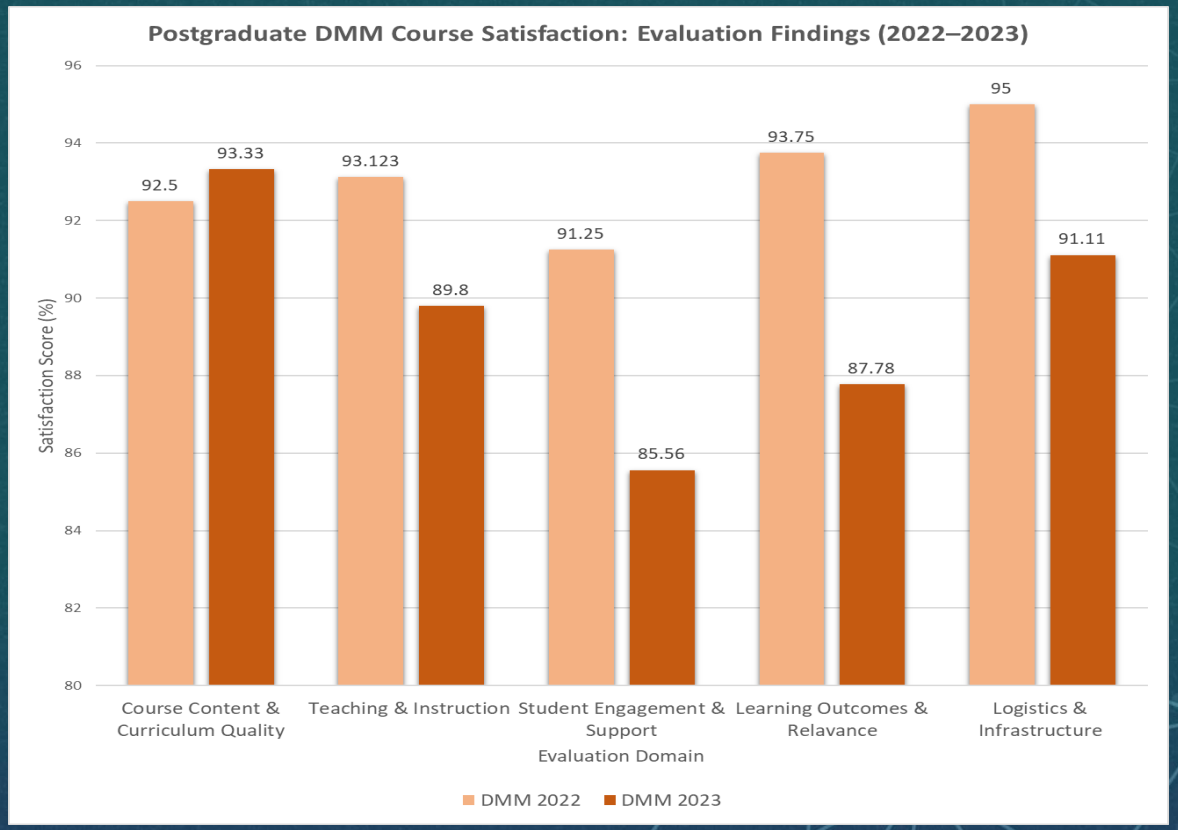




Teaching Tools (Microscope upgrades cited in feedback)



Postgraduate DAP&E program satisfaction scores increased across all key domains from 2022 to 2023.



Postgraduate DMM program satisfaction (2022–2023) reveals mixed trends: Course Content & Curriculum Quality maintained high satisfaction (93.3%), while declines were observed especially in Student Engagement & Support and Learning Outcomes & Relevance.

Identified Challenges

Issues derived from quantitative data (scoring) and qualitative feedback from students (2022–2023)

No	Main components	Key issues identified
1.	**Programme Planning & Scheduling**	a) Frequent and last-minute changes to the timetable b) Sudden adjustments to dissertation schedule c) Inadequate time allocated for exams and dissertation presentations d) High exam frequency
2.	**Dissertation / Research Supervision**	a) Unclear guidelines for dissertation, viva, and submission process b) Lack of dedicated time for dissertation work c) Limited supervisor availability d) Thesis expectations are too high for short-duration courses e) Time constraints during thesis presentations affect discussion quality
3.	**Teaching Quality & Delivery**	a) Perceived lack of lecturer enthusiasm b) Fast-paced delivery or inconsistent language use c) Some sessions were poorly structured or lacked clear objectives d) Limited two-way interaction, especially during laboratory sessions
4.	**Teaching Materials & Resources**	a) Lack of laboratory manuals to guide practical sessions effectively. b) Use of outdated or deteriorated specimens, limiting the quality of hands-on learning. c) Insufficient visual aids, such as microscopes connected to monitors, especially important for group learning. Lecture notes not provided in advance, creating challenges for international students to follow and prepare.
5.	**Assessment & Curriculum Design**	a) Outdated or irrelevant assessment components in certain modules b) Absence of continuous assessment in some subjects

Interventions Implemented

No	Main components	Key issues identified	Action Implementation during 2023
1.	**Programme Planning & Scheduling**	a) Frequent and last-minute changes to the timetable b) Sudden adjustments to dissertation schedule c) Inadequate time allocated for exams and dissertation presentations d) Excessive exam frequency e) Inconsistent project/sampling timelines among students	• Early booking of teaching slots with lecturers and facilitators • Dedicated secretariat assigned to coordinate with external lecturers • Two-way communication via WhatsApp group to ensure timely updates for students
2.	**Dissertation / Research Supervision**	a) Unclear guidelines for dissertation, viva, and submission process b) Lack of structured time for dissertation work c) Limited supervisor availability d) Thesis expectations are too high for short-duration courses e) Limited time during thesis presentation affects depth of discussion	• Flexibility granted by the Dean in scheduling dissertation presentations and submission deadlines to enable more meaningful discussions and constructive feedback.
3.	**Teaching Quality & Delivery**	a) Perceived lack of lecturer enthusiasm b) Fast-paced delivery or inconsistent language use c) Some sessions were poorly structured or lacked clear objectives d) Limited two-way interaction, especially during laboratory sessions	• Replace underperforming lecturers with more effective educators to improve teaching quality and student engagement. • Provide clear guidance to trainers on the expected learning outcomes and ensure their commitment to achieving these outcomes for each topic delivered.
4.	**Teaching Materials & Resources**	a) Lack of laboratory manuals to guide practical sessions effectively. b) Use of outdated or deteriorated specimens, limiting the quality of hands-on learning. c) Insufficient visual aids, such as microscopes connected to monitors, especially important for group learning. d) Lecture notes not provided in advance, creating challenges for international students to follow and prepare.	• Encouragement lecturers and facilitators to provide lecture notes and lab manuals in advance • Use of updated specimens and materials • Procurement of microscopes equipped with monitors and cameras
5.	**Assessment & Curriculum Design**	a) Outdated or irrelevant assessment components in certain modules b) Absence of continuous assessment in some subjects	• Assessment and curriculum review workshop were conducted with the academic expert, Assoc. Prof. Dr. Fadzilah Mohd Nor @ Ghazali from the Faculty of Medicine, Universiti Teknologi MARA (UiTM)

Interventions Implemented

(https://linktr.ee/PGDMM_PGDAPE)

A digitalized course schedule is implemented to ensure real-time updates, making it easily accessible for both students and lecturers

Photograph of an inverted microscope equipped with a monitor and camera system, enabling real-time display of microscopic images during practical sessions. This setup enhances clarity and understanding by allowing students to follow the lecturer's demonstration more effectively.

Interventions Implemented

Workshop on the Development of Examination Questions for the Postgraduate SEAMEO TROPMED Malaysia Postgraduate Program, 9 -10 August 2023

Workshop on updating and reviewing of the curiculum structure for the program SEAMEO TROPMED Malaysia, 6-8 March 2024 and 3-4 October 2023

Conclusion & Recommendations

The Postgraduate DAP&E Programme: Significant Satisfaction Improvement

Student feedback has driven measurable enhancements in postgraduate program quality

- Overall satisfaction increased from 86.06% (2022) to 93.81% (2023).

Conclusion & Recommendations

The Postgraduate DMM Programme: Addressing Satisfaction Challenges

While the Postgraduate DAP&E programme showed improvement, the Postgraduate DMM programme experienced a slight decline in satisfaction, highlighting areas for refinement

- **Identified area of improvement:**
  - Outdated laboratory equipment and material affecting practical training.
  - Content delivery challenges especially for international students (e.g., language barriers, pacing).
  - Limited engagement during lectures; need for more interactive teaching methods.
  - Insufficient dissertation support, affecting research progress and outcomes.

Recommendations improvement for next intake

- Upgrade lab equipment and materials.
- Enhance teaching strategies to accommodate diverse learning styles and student backgrounds.
- Strengthen dissertation guidance and selected dedicated supervisor.
- Provide additional academic and language support to assist international students in adapting to the learning environment.

Thank you

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