

## Evaluation of the Basic Training Program at the School of Ophthalmic Technology

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### Abstract

**Background:** Training and development are vital in Human Resource management. The School of Ophthalmic Technology offers diploma-level training in Sri Lanka, and the Ministry of Health collaborates to streamline the program.

**Objective:** To Evaluate ophthalmic technology training at the School of Ophthalmic Technology to improve the quality of eye care and health outcomes.

**Methods:** The study conducted at the National Eye Hospital from December 2023 to January 2024. Both qualitative and quantitative research methods were used. The sample population involved four trainers and 24 trainees. The methodology included assessments from both trainees and trainers, facility surveys, document reviews, and key informant interviews. The data was analysed using SPSS.

**Results:** The study has identified several issues related to trainees, including communication difficulties with non-academic staff, the unavailability of dining room facilities, a lack of hands-on experience with OCT (Ocular Coherence Tomography) and FFA (Fluorescein Fundus Angiography), a lack of clarity about the curriculum/syllabus, unavailability of past papers, and a majority of trainees failing in the main exams.

**Conclusion:** To address trainee issues, it is crucial to update the curriculum to align with the current requirements of the clinical field. The evaluation process for students

should also be scrutinized. Moreover, students should have easy access to past papers and curriculum details. The hospital administration must take measures to support the trainees whenever necessary.

**Keywords:** trainees, curriculum, training, ophthalmic technology

### Introduction

Ophthalmic Technology is a field of medical science that focuses on studying various technologies and processes used to treat different eye-related issues. This area of study can lead to becoming an ophthalmic technician or optometrist, who is responsible for introducing patients to eye care products at eye care centres. Ophthalmic technology is a paramedical program that provides expertise in eye care.

To gain admission to an ophthalmic technology school, candidates must have passed the GCE Advanced level examination in all three subjects, including a "Credit" pass in physics.

The Sri Lanka Qualifications Framework (SLQF) Level 04 Higher Diploma Certificate can be obtained after completing a two-year training and passing the final exams at each year's end. In the first year, 13 out of 27 modules must be completed before the year-end examination, and the remaining 14 modules must be completed before the end of the second year.

The evaluation process for basic ophthalmic technology training is coordinated by Education, Training and

Research (ET & R) unit of the Ministry of Health.

### **Objective**

To evaluate the ophthalmic technology training at the School of Ophthalmic Technology to improve the quality of eye care and health outcomes.

### **Methodology**

*Study setting:* School of Ophthalmic Technology (National Eye Hospital)

*Study period:* December 2023 - January 2024

The trainer sample population was 04 and the trainee sample population was 24.

*Study methods:* Qualitative and quantitative study methods were used.

*Study instruments:*

1. An interviewer administered questionnaire to all trainers and trainees of the School of Ophthalmic Technology.
2. Facility survey using an observational checklist
3. Key informant interviews were conducted among three ophthalmic consultants, two advisory board members, the program manager for the ophthalmic technology training programme, the school principal, and a senior tutor.
4. Document Review

The collected data was analysed using SPSS and content analysis was conducted.

### **Results**

Approximately 33.3% (or about one-third) of the population disagrees with the statement that there are adequate learning

facilities available. (24 responses of Trainees).

Based on the results, the quality of teaching was deemed satisfactory.

The content analysis was used to analyse the results obtained from the Key Informant Interviews.

### **Discussion**

After analysing the results, the following issues were identified:

The frequent difficulties faced by the students:

1. Communication difficulties with non-academic staff
2. Meals and/or refreshments availability. No dining room facilities are available for students
3. Issues related to learning facilities
  - a. Not having a clear idea of the curriculum/syllabus
  - b. Unavailability of past papers for first, second and final year exams
  - c. The syllabus includes hands-on experience with OCT (Ocular Coherence Tomography) and FFA (Fluorescing Fundus Angiography). Even though the facilities available at the National Eye Hospital students have to travel to distant places such as Kandy, Walisara and Karapitiya using their expenses.
  - d. Irrespective of the experience the students can get exam questions from above mentioned OCT and FFA areas.
  - e. Even though they managed to get through both years' repeat exams, the majority were unsuccessful in their main exams

**Table 2: Trainee Evaluation on ophthalmic technology training module**

Parameters	Highly Disagree	Disagree	Moderate	Agreed	Highly Agreed
A. Course curriculum and content					
1. Learning objectives were relevant			29.2%	41.7%	29.2%
2. Learning Objectives were clear			20.8%	29.2%	20.8%
3. The usefulness of training contents			33.3%	54.2%	12.5 %
4. The duration of the training was sufficient			45.8%	29.2%	20.8%
5. The time schedule of the training was adequate	4.2%	8.3%	45.8%	25%	16.7%
B. Trainers					
1. The trainers were able to create and maintain my motivation to learn			45.8%	41.7%	12.5%
2. Training contents were clear		4.2%	45.8%	41.7%	8.3%
3. Training techniques were useful			50%	37.5%	12.5%
4. My expectations matched with the training		12.5%	54.2%	25%	8.3%
5. Can communicate adequately with the trainers		4.2%	45.8%	29.2%	20.8%
C. Facilities and Environment					
1. The training place and environment were good		4.2%	45.8%	29.2%	20.8%
2. Travelling and other facilities were sufficient.		39.1%	52.2%		8.7%
Meals and/or refreshments facilities available.	8.3%	29.2%	41.7%	12.5%	8.3%
Can communicate adequately with the non-academic staff	4.2%	33.3%	50%	12.5%	
Learning facilities were adequate for trainees	4.2%	20.8%	41.7%	25%	8.3%
In addition to the issues mentioned above, there were other concerns raised by the key informants.					
1. There is no recent updated syllabus for recent years. Therefore, high volume content may reduce the quality of teaching.					4. Need to reconsider OCT/FFA level of knowledge evaluation for trainees. In-service training for these techniques may also be useful.
2. The course content/syllabus need to be revised.					5. It is necessary to strengthen some basic training areas like refraction, visual field, biometry, and basic assessment of squint.
3. OCT/FFA machine inventory and usage needed hospital administration involvement.					
<b>Conclusion</b>					
Trainees often encounter various difficulties and issues during their ophthalmic technology training. This study					

highlights the importance of early interventions to enhance basic training in this field. To achieve this, the curriculum should be updated to meet the present requirements of the clinical field. The evaluation process for students should also be re-evaluated. Furthermore, students should have free access to curriculum details and past papers. The hospital administration should take relevant steps to identify training gaps and facilitate the trainees to ensure quality learning modules. Further studies are recommended to identify the gaps in training and improve the quality of the curriculum.

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