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## Evaluations of Exit Competencies of Optometrists in Mozambique

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## Introduction

The Mozambique Eye care Project (MEP) is developing the country's first indigenously trained optometrists using a competency-based education curriculum.

## Aims

- To evaluate the exit clinical competencies of the first optometry graduates in Mozambique
- To use the competency evaluations to inform the evolution of the competency curriculum
- To establish entry-level competency standards for emerging optometry graduates in Mozambique

## Methods

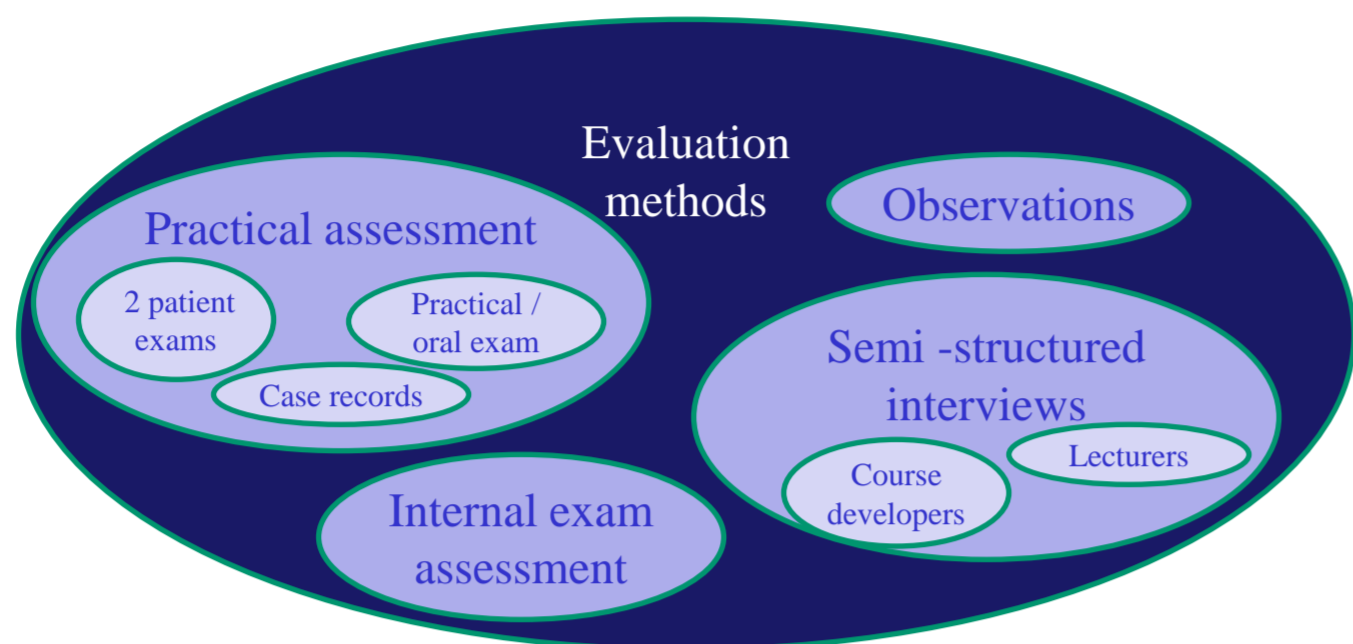


Figure 1: Methods of comprehensive exit competency evaluation

## Results

### i) Practical assessment and internal exams

Using UK based competencies as a benchmark the following results were obtained:

Competency	Number of students competent (N=9)
1. Communication	9
2. Professional Conduct	9
3. Methods of Ophthalmic Examination	9
4. Ocular Disease	4
5. Visual Function (includes refraction, prescribing and management decisions)	0
6. Binocular Vision	4

Table 1: Results of students competencies

### ii) Results from interviews with course developers and lecturers

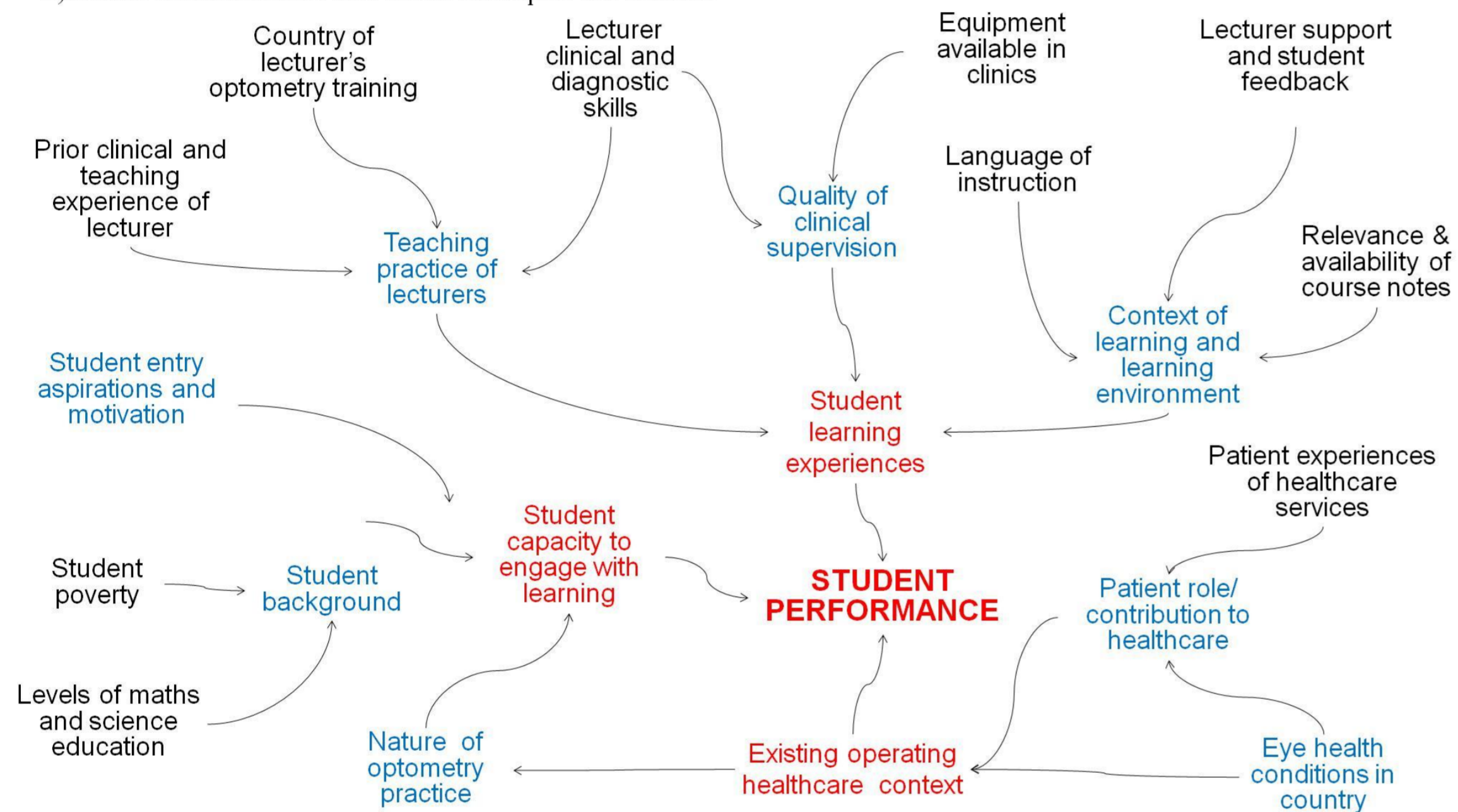


Figure 2: Results from interviews with course developers and lecturers: factors influencing student performance

### iii) Observations during assessments

The context of the examinations was UK based exit competencies were used with students on an international curriculum taught by multi-national lecturers. This presented unique challenges.

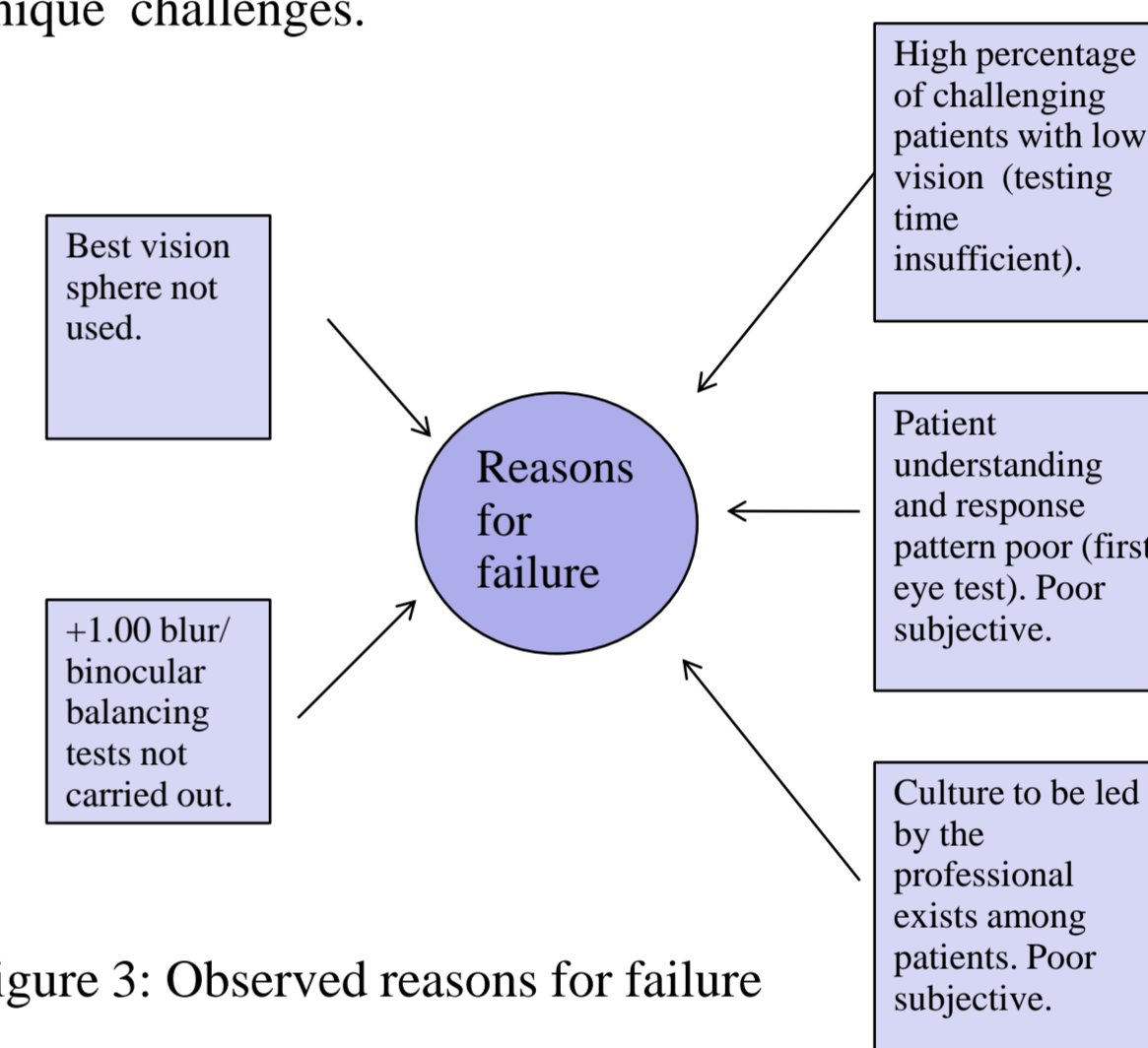


Figure 3: Observed reasons for failure

## Discussions and Recommendations

### Factors affecting performance

#### a) Student learning experience

- Lecturer background and training influenced student training - e.g. strong diagnostic and therapeutic influence, at the expense of refraction routine elements such as binocular balancing
- Clinical training protocol need to be implemented to optimise clinical competencies.

#### b) Existing healthcare context

**Enhanced training needs:** Adapting the course to increase clinics in:

- low vision
- high refractive errors
- binocular vision
- addressing local issues of health literacy, poverty and traditional medicine

**Clinic organisation needs:** Better structure to allow for more time in clinics with challenging patients and more support staff to give feedback.

**Personal development plan:** When the students go into practise a personal development plan is recommended to be prepared with a lecturer who mentors them and oversees their training and progress.

#### c) Student capacity

The University has to set appropriate pre-entrance exams to pick students that are more suitable for the course. Only 9 of the original 16 students progressed to the final year. A higher entry standard for basic maths and sciences would ensure that the students can understand concepts quicker influencing student performance.

## Conclusions

Two main lessons have been learnt in Unilurio about starting up a competency based education system for health professionals in a developing country context:

- A need for early review due to the lack of ideal starting conditions (lecturers with different backgrounds, course materials not arriving etc).
- Complex health and social contexts have significant impact upon the required performance of optometrists. An analysis of local context is necessary before designing a curriculum based on competencies.

As a result of these evaluations the final year students underwent a one-week intensive course in subjective testing and binocular balancing successfully before graduation.

## Acknowledgments

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## For further information

Please contact [kajshah@aol.co.uk](mailto:kajshah@aol.co.uk). More information on this and related projects can be obtained at [www.mozeyecare.org](http://www.mozeyecare.org)



Figure 4: Students and lecturers in clinic