

# A Curriculum For Dispensing Optician: A Case Study In Vietnam

Duong Dieu MD

**Abstract:** Until 2011 there had been no full-time training course for dispensing optician diploma in Vietnam. Most of the practicing opticians with no qualification and formal training have learnt their skills through apprentice. In response to the demand of the industry, Nguyen Tat Thanh University (Vietnam) has teamed up with Bradford College (United Kingdom) to develop a curriculum for a of formal 2-year full-time training for dispensing optician. The curriculum is applied for 4 semesters, and graduate gets called Intermediate Professional Diploma, level included 4 semesters. (In VN after high school, students can obtain different many levels of study such as: Intermediate Professional Diploma; College; Bachelor; Master and PhD). The 1st semester is basis of Intermediate Professional Diploma level. The 2nd semester is the study of refractive error and primary care, each for 4 weeks (100 hours) in theory and primary eye care 4 weeks for theory (100 hours). Also in this semester, the learners have practiced clinical rotation at the Ophthalmic Hospital / Ophthalmic Service in General Hospital for 10 weeks. The 3rd semester is specialized of dispensing Optician included: Lenses, frame, contact lenses, and laboratory for optician. In the 4th semester, the training concentrates in the management of the eyeglasses shop and practicing in making spectacles for customers are in the 4th semester. The 1st intake of the course was opened started in 2011 and had 30 students graduated in 2013. This paper describes the experience of developing the curriculum in the context of a developing country where the industry is still under regulated and less developed. The first program optician that privileged on primary eye care will be satisfied for community (WHO 2020: 1 optometrist for 50.000 people and 10 ophthalmologists for 1.000.000 people). Some characteristics of first course' students have been noted. The result of this curriculum will be evaluated in the coming time.

**Key words:** Optician curriculum, primary eye care, refractive errors, eye diseases, student characteristics.

## 1. INTRODUCTION:

Until 2011 there had been no full-time training course for dispensing optician diploma in Vietnam [1]. Most of the practicing opticians with no qualification and formal training have learnt their skills through apprentice. In response to the demand of the industry, Nguyen Tat Thanh University (Vietnam) has teamed up with Bradford College (United Kingdom) to develop a curriculum for a formal 2 year-full-time training dispensing optician [2,3,4]. This curriculum is called Intermediate Professional Diploma level included 4 semesters. (In Vietnam there are many levels such as: Intermediate Professional Diploma; College; Bachelor; Master and PhD after finished high school). The 1st semester is basis of Intermediate Professional Diploma level. The 2nd semester is refractive error for 100 hours (4 weeks) in theory and primary eye care 100 hours for theory (4 weeks). In this semester, the students have practiced at the Ophthalmic Hospital / Ophthalmic Service in General Hospital for 10 weeks. The 3rd semester is basis of dispensing Optician included: Lenses, frame, contact lenses, and laboratory for optician. The management of the eyeglasses shop and practicing in making spectacles for customers are in the 4th semester. This paper describes the experience of developing the curriculum in the context of a developing country where the industry is still under regulated and less developed. The first program optician which focuses on primary eye care so that they can work together with ophthalmologists in community and some characteristics on student records will discuss.

## 2. MATERTAL AND METHOD: A case study

- 2.1 To report our experiences in curriculum of Intermediate Professional Diploma in optician.
- 2.2 Some characteristics in curriculum as well as students records results.

## 3. RESULTS AND DISCUSSIONS:

### 3.1 Curriculum details:

The Diploma for Optical Technicians has the following specific learning outcomes [3, 4, 5] In the year 1: By the end of semester 1 the student will be able to use informatics technology (IT) systems for research, administration and technical purposes; to explain the anatomy of the eye; to recognize abnormal ocular conditions and take the correct course of action for those which are sight threatening; to communicate effectively within the workplace and to demonstrate effectively the practical skills required within the optical industry. By the end of semester 2 the student will be able to resolve customer complaints and concerns in a courteous manner; Recall the anomalies of ametropia; to demonstrate a knowledge and understanding of basic optical principles relating to ophthalmic lenses; to recognize and define terms relating to ophthalmic lenses, to carry out adjustments to all types of spectacles; to take appropriate accurately lens, frame and facial measurements; to determine the power of spectacle lenses using the lens meter and to display and merchandise products in the optical store. In the year 2: By the end of semester 1 the students should be able to demonstrate a working knowledge and understanding of glazing all types of spectacles; to make up spectacles to the correct prescription; to demonstrate the ability to apply technical, ophthalmic and communication skills in the workplace; to demonstrate the ability to explain the benefits and pricing of optical products and closing the sale and to demonstrate a knowledge and understanding of the instruments and equipment used to carry out vision tests. By the end of semester 2 the students should be able to demonstrate the ability to carry out accurate vision tests using the appropriate instruments and equipment; to demonstrate

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effectively the ability to advise on the choice and management of contact lenses; to demonstrate the ability to apply technical, ophthalmic and communication skills in the workplace and to interpret and discuss all types of spectacle prescriptions This is a two years full time for Intermediate Professional Diploma level with 4 detail semesters as follow: (Fig.1)

- The 1st semester is basis of Diploma. According to Minister of Training and Education Regulation: Several subjects in this semester such as: Politics, Health law, Physical training, Foreign languages, Informatics technology, Communication skill...
- The 2nd semester: special on theory and practicing [4].

For theory: consisted of refractive error in 100 hours for 4 weeks and Primary eye care in 100 hours for 4 weeks. For practicing: In this semester, the students have practiced at the Ophthalmic Hospital or Ophthalmic Service in General Hospital for 10 weeks. (Fig. 2) In eye diseases included 2 parts. The first is anterior segment: Conjunctivitis-Trachoma-Trichiasis-Keratitis-Ptergion-Uveitis-Glaucoma-Cataract...on patients. The second is posterior segment: Vitreous-Retina diseases by images/photo; by radiography. +Some ophthalmic basis such as: Visual Acuity – Chamber Visual- Tonometer for intraocular pressure - Movement of eyeball; Ophthalmic emergency: Eye burning/Trauma...; Ophthalmic Drugs: collyre for septic using in diagnosis and treatment ...

- The 3rd semester: The specialized subjects of dispensing Optician includes: Lenses, frames, contact lenses, and laboratory for optician.
- The 4th semester: The management of the eyeglasses shop and practicing in making spectacles for customers.

### 3.2. Some characteristics in student records:

**+ Ages:** The mean age is 22,  $8 \pm 3$ , 2. the lowest age is 18 years old and the highest age is 41years old. Group of ages from 18 years to 25 years occupies 65%.

**+ Gender:** 25 males and 15 females. The ratio of Male / Female is 1, 66.

The 1st intake of the course was opened in 2011 included 40 students (input) and with 30 graduated students in 2013 (output). The percentage of graduation is 75%. (Fig. 3)

**+ Other diploma:** Yes= 4/ No=36. The students who had the other diploma before studying optician were 10%. (Fig. 4)

**+ Owner eyeglasses shop (or family):** Yes =25/ No =15. The students who had their eyeglasses shop or eyeglasses shop of their family were 62, 5 %. (Fig. 5)

### Discussions:

Bradford College is one of the leading colleges in The United Kingdom. [2, 3, 4] Since 1960, Bradford College is renowned in the UK for its educational provision with regards to ophthalmic. Currently, Bradford College provides ophthalmic training at foundation degree (2-year full time or 3-year part-times). Two years ago 2009, Bradford College established the partnership with Nguyen Tat Thanh College to assist them in developing a program for ophthalmic training. The project was supported by The British Council in the framework of UK Prime Minister's Initiative Funding Stream 2 (PMI2). Until now 2010, Nguyen Tat Thanh staffs have completely developed a program that we feel address the shortage of qualified ophthalmic technicians in Vietnam. In fact, the British Council has commended this project as one of their most successful,

and has agreed to extended funding's for the second stage of the project, in which UK staff would come to Vietnam to train Vietnamese staff, and Vietnamese staff would come to UK for further development.

### Award structure:

The program is taught over two years of full time study at Nguyen Tat Thanh University. The award will be a vocational diploma and comprises of 1500 contact hours. When the students have successfully completed the Diploma they will be able to apply for a license to work in an optical outlet or progress to a higher award in a related subject. The Diploma for Optical Technicians has been designed to ensure that the students develop the necessary knowledge and practical skills to become a licensed practitioner. It will also enable them to develop the interpersonal and professional communication skills to prepare them to interact effectively with customers in the workplace [2, 3]. The units offered have been written to address the needs of the employers and ensure that the students have the required level of academic and professional skills to succeed on the course. In the year 2, the students will have the opportunity to demonstrate his/her knowledge, communication and dispensing skills in the workplace. There will be close links to your supervisor in the workplace and your College tutor. During the Professional Practice modules, you will work with a wide range of patients in relation to age, ocular condition and refractive status so that you gain the necessary skills and experience. [4, 5, 6] By decision number: 840/QD-BGDDT signed by Bui Van Ga, Deputy Minister of Training and Education on March 1st 2011 to approve Nguyen Tat Thanh College to offer Professional Diploma courses in ophthalmic dispensing. [7]. In 15 September 2011 Nguyen Tat Thanh College has opened the 1st intake of the course and this course was graduated 2013.

- **The advantage:** Because of Vietnam- a developing country in a tropical area the high percentage of eye transmitted diseases is high and staffs in this field do not meet the need. There are 2000 eye doctors and 2500 eye nurses for over 90 million people. So the training for optician students in eye care is necessary. [1]

- **The limitation:** Refractive errors staffs (optometrist) is very rare so the training optician less available.

- **The needs:** Training eye care for optician compares with training refractive errors for assistant physician/ eye nurse staffs/ or ophthalmologist (in advance): Which is better to meet the needs? Vietnam has to do more and more efforts in optometry field to meet the demand/need WHO Advice (2020): 1 optometrist for 50.000 people and 10 ophthalmologists for 1.000.000 people. [1, 2, 4, 6]

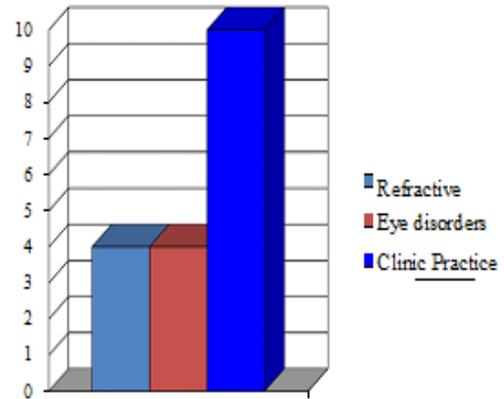
## 4. CONCLUSIONS:

- This is the first curriculum of dispensing optician diploma in Vietnam, which focused on primary eye care associated with optician and some characteristics on students were reported and the result of this curriculum will be evaluated in the coming years.
- This curriculum can be met the WHO Advice 1 optometrist for 50.000 people by the year 2020.

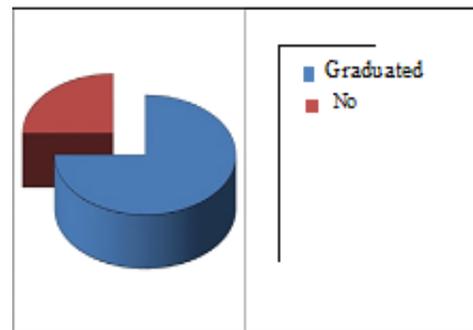
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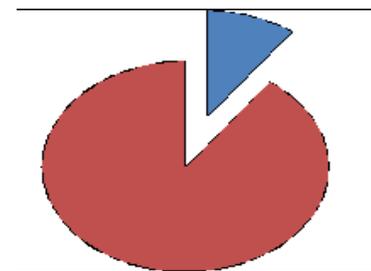
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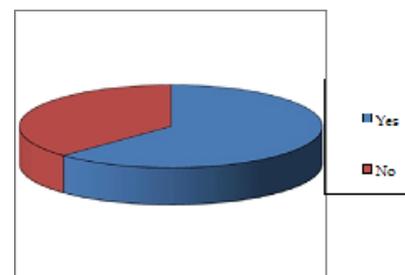
**Fig. 2:** Distribution Training of Detail Eye Disorders and Refractive Errors by weeks



**Fig. 3:** Percentage of graduation

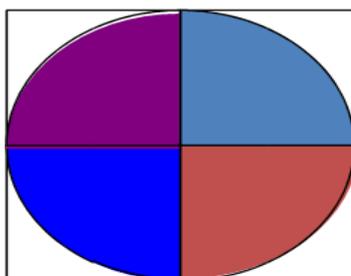


**Fig. 4:** Learners had other diploma



**Fig. 5:** Learners are owner glasses shop

- 1<sup>st</sup> Basis Diploma
- 2<sup>nd</sup> Eye care
- 3<sup>rd</sup> Optician
- 4<sup>th</sup> Management



**Fig. 1:** Four Semesters of Curriculum