

**A STUDY ON VISUAL ACUITY AND VISUAL SKILLS  
AMONG PRESUMED SLOW LEARNERS IN PRIMARY  
SCHOOL IN KOTA BHARU, KELANTAN**

**BY**

**DR. MUZALIHA MOHAMED NOR**

**MD (USM)**

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**SCHOOL OF MEDICAL SCIENCES**

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## **ABSTRAK**

### **PENDAHULUAN**

Isu pelajar lambat semakin menarik perhatian individu dan orang ramai. Ketidakupayaan membaca dan menulis menjadi penghadang major dalam pembelajaran dan boleh memberi impak social dan ekonomi. Pelajar yang mengalami masalah dalam pembelajaran mungkin juga mengalami masalah penglihatan yang boleh dirawat sebagai tambahan disebalik masalah utama pembelajaran.

### **OBJEKTIF**

Kajian ini adalah bertujuan untuk menentukan tahap ketajaman penglihatan dan kemahiran penglihatan pelajar yang dianggap lambat di kalangan pelajar sekolah rendah di Kota Bharu, Kelantan. Kebarangkalian wujudnya kaitan diantara tahap ketajaman penglihatan dengan kemahiran penglihatan turut dikaji.

### **METODOLOGI**

Kajian ini dilaksanakan di sekolah-sekolah rendah di daerah Kota Bharu bermula dari Januari 2009 hingga April 2010. Pemilihan secara berperingkat dilakukan ke atas semua sekolah di Kota Bharu. Pemeriksaan okular dijalankan ke atas semua pelajar yang terpilih. Seramai 1010 pelajar (purata berumur 9.5 tahun) daripada 20 sekolah rendah di Kota Bharu di ukur tahap ketajaman penglihatan dan kemahiran penglihatan masing-masing. Pelajar yang mengambil bahagian telah dikenalpasti sebagai pelajar yang dianggap lambat oleh guru sekolah masing-masing. Kemahiran penglihatan diukur menggunakan prosedur standard dan dibandingkan dengan nilai normal yang diterbitkan.

## **KEPUTUSAN**

Majoriti daripada pelajar (96.5%) mempunyai tahap ketajaman penglihatan yang baik. Hanya 4.5% pelajar mempunyai masalah penglihatan. Punca utama lemah tahap ketajaman penglihatan adalah disebabkan kesalahan refraktif. Seramai 7.8%, 3.3% dan 2.0% daripada pelajar adalah myopia, astigmatisma dan hypermetropia masing-masing. Kebanyakan diantara pelajar tidak didiagnos dan dirawat sebelum itu. Kemahiran penglihatan yang terjejas di dalam kajian ini adalah kemahiran divergen pecah dan sakadik. Titik dekat konvergen, kemahiran konvergen pecah dan pulih, amplitud akomodasi dan fasiliti akomodasi masih bagus. Tahap ketajaman penglihatan adalah berkait rapat secara statistik dengan konvergen pecah dan fasiliti akomodasi. Tahap ketajaman penglihatan tidak berkait rapat secara statistik dengan konvergen pulih, divergence pecah dan pulih, akomodasi amplitud dan kemahiran sakadik.

## **KESIMPULAN**

Keputusan menunjukkan sebilangan besar pelajar yang dianggap lembam mempunyai kemahiran penglihatan yang lemah tetapi hanya sebilangan kecil mempunyai tahap ketajaman penglihatan yang lemah. Tahap ketajaman penglihatan adalah berkait rapat secara statistik dengan tahap kemahiran penglihatan.

## **ABSTRACT**

### **INTRODUCTION**

The issues of slow learner have become a matter of increasing personal and public concern. In ability to read and write is a major obstacle to learning and may have social and economic implications. Those students who experience learning difficulties may also experience a treatable visual difficulty in addition to their primary learning difficulties.

### **OBJECTIVES**

To determine the visual acuity and visual skills among presumed slow learners in primary schools in Kota Bharu, Kelantan. We also studied the possible association between visual acuity and visual skills.

### **METHODS**

A school based cross sectional study carried out from January 2009 to April 2010. Multistages cluster sampling was performed on all primary schools in Kota Bharu. Ocular examinations were carried out in all selected students. Visual acuity and visual skills were measured in 1010 students (average 9.5 years) in 20 primary schools. Participating students had been identified by their school teachers as presumed slow learners. Standard visual skills test and published norms were used.

## **RESULTS**

Majority of the students (96.5%) had good visual acuity in both eyes. There were only 4.5% of the students had visual impairment. The main cause for poor visual acuity was due to refractive errors. There were 7.8%, 3.3% and 2.0% of the students had bilateral myopia, astigmatism and hypermetropia respectively. Most of them were undiagnosed and untreated before. Divergence skills and saccadic tracking skills were the most affected visual skills in this study population. Near point of convergence, convergence skills, accommodative amplitude and accommodative facility were still good. There was statistically significant association between the level of visual acuity and the level of convergence break and accommodative facility. There were no statistically significant association noted between the level of visual acuity and the level of convergence recovery, divergence break and recovery, amplitude of accommodation and saccadic tracking skill.

## **CONCLUSION**

The results showed large numbers of the presumed slow learner students had poor visual skills but less numbers of poor visual acuity. There were statistically significant association between the level of visual acuity and the level of visual skills.