Math Teaching Aids – A Feasible Solution for Vietnamese Blind Students’ Learning

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- Needs and solutions.
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Current difficulties of teaching and learning Mathematics for Vietnamese blind students

Mathematics is one of the most compulsory important subjects throughout curriculum from primary to high school in Vietnam.

- Braille Maths textbooks cannot show definitions and abstract concepts clearly.
- There are no curricular choice, technical support and teaching aids for the blind students.
- Maths teachers in special schools constructed some models to teach => useful but break easily.
- Leave school, take massage and handicraft courses.
  A very limited number of talented students choose music, foreign language or social sciences...
Needs and Solutions

• Having Maths teaching aids following the Vietnamese curriculum from primary to high school level.

• Review the curriculum.

• Determine lessons that need models.

• Designing, constructing, testing and completing an original set of Maths teaching aids.
Samples and Results

Designing, constructing, testing and completing an original set of Maths teaching aids

■ Designing and constructing with different materials.
■ Testing at Nguyen Dinh Chieu Special School.
■ Adjusting as required (materials, sizes, etc.)
■ Completing an original set of Maths teaching aids.

Video show
The intelligent calculator box for primary school students
Teaching aids for the secondary school students

Models of rays, straight lines and the relative position between two lines

Assembly basic models (triangle, rectangle, trapezium, parallelogram, rhombus…)

Dublin, 07.10.2019
Teaching aids for the secondary school students

Midline in triangle

Concurrent lines in triangle (medians, bisectors)

Concurrent lines in triangle (perpendicular bisectors, altitudes)
Teaching aids for the secondary school students

Graph functions and applications

The relative position of the circle and straight line

Circle and related concepts (circumcircle, central angle, inscribed angles, tangents, etc.)

Trigonometry circle
Teaching aids for the high school students

Solid geometry (tetrahedron, trapezium/ rectangular/ parallelogram/ rhombus pyramid, triangular prism, etc.)
Teaching aids for the high school students

Cross sections
Teaching aids for the high school students

Axisymmetric models

Rotation models
Teaching aids for the high school students

Relations between line & plane, plane & plane (parallel, intersecting and containing/ concomitant)

The cone and element of a cone
Teaching aids for the high school students

Models perform Oxyz spatial coordinates in space

Coordination in solid geometry

Integral application models in simple shapes
Conclusion and Future Orientation

Feedback from special school’s teachers and students and VNUHCM-University of Science’ students

Why only Math teaching aids?

Why only blind students?

We will construct Math teaching aids for all special schools in Vietnam if needed.

Whenever communities need, please let us know.

Now we think more about social responsibilities...
Conclusion and Future Orientation

➢ Constructing over 2000 Maths teaching aids for many special schools throughout Vietnam.

➢ Constructing hundreds of teaching aids in different disciplines for many types of disable students.
Conclusion and Future Orientation

IS IT WORTH?

FINANCE

TIME

RESPONSIBILITY

WHY NOT?
1. Bộ Giáo dục và Đào tạo, Toán 1 – 12, NXB Giáo Dục Việt Nam.


3. Đồng Thị Bích Thủy, Nguyễn Thành Hải, Phùng Thúy Phương (2010), Giới thiệu một số phương pháp giảng dạy cấu tiền giúp sinh viên học tập chủ động và trải nghiệm, đạt các chuẩn đầu ra theo CDIO, ĐH Quốc gia Tp. Hồ Chí Minh - Hội thảo CDIO.

THANK YOU VERY MUCH FOR YOUR ATTENTION!