

## **DEVELOPMENT OF KIT COMP FOR BASIC SURVEYING COMPUTATIONS (DCG1012) FOR DIPLOMA GEOMATIC STUDENTS**

### **Abstract:**

This study aims to develop a teaching aid to enhance understanding, enthusiasm, achievement, mastery, overcome the weaknesses of students in mastering and understanding the topic of bearing and angle for Surveying Computations Basic course in Polytechnic Merlimau Malacca. This study was also conducted to review the effectiveness of the teaching aids among lecturers and students of Geomatic during the process of learning and teaching. The study involved semester 1 students who take the Geomatics Surveying Basic Computation (DCG 1012) course in Politeknik Merlimau, Melaka. The results showed the improvements in student to understand the bearing and angle topic with the help of teaching aid. This teaching aid is expected to be used by lecturers to increase the understanding and knowledge of students on the topic of the bearing, angle and trigonometry for Basic Computation Surveying course. The instruments used are interviews, observations and questionnaires were constructed based on the problems and opinions about the teaching aids. All data were analyzed using Statistical Package for Social Science for Window Release (SPSS) to get the frequency, percentage and mean. The findings indicate that the interest is at a high level, the cooperation aspects showed that the students help each other during the activity and teaching aid can help lecturers in the teaching process. In addition, the resulting teaching aid can be used and modified again in order to enhance its effectiveness. Teaching aid produced the expected and help lecturers and students for Basic Computation Surveying course. In conclusion, teaching aid has the potential to improve student achievement and useful to students.

**Keyword:** Teaching aid, bearing, angle, Basic Surveying Computation

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### **Finding:**

Overall, the students agreed that the Kit Comp can increase motivation, the interface design is suitable and attractive, enhance understanding and comfortable to use in teaching the course Basic Surveying Computations. Result from the questionnaire;

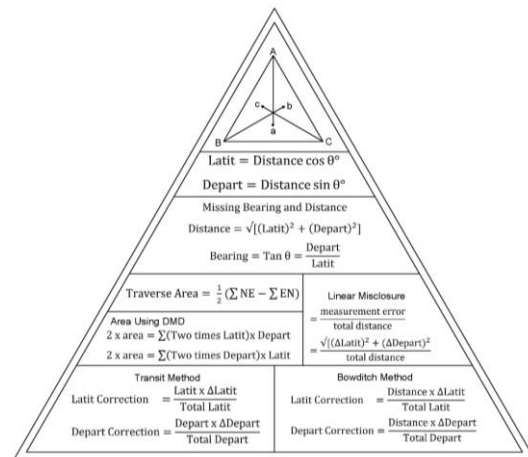
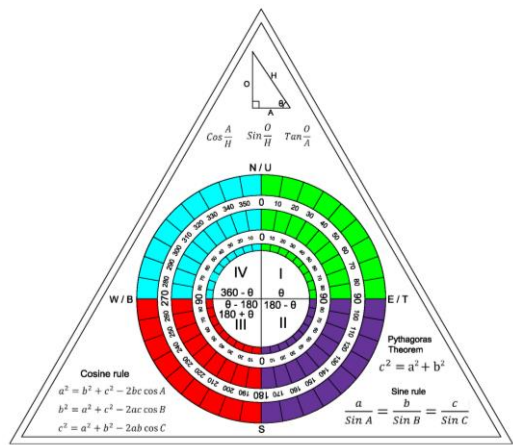
Aspects of Assessments	Overall Mean	Interpretation Level
Motivation	4.50	Totally Agree
Interface Design	4.30	Agree
Understanding	4.32	Agree
User comfort	4.35	Agree

### **Suggestion for future work**

Based on this study, the researchers identified a shortage and weaknesses that need to be corrected for the next study. Below are some suggestions for future researchers to deepen the study

- i. Using a larger sample so that the findings can be generalized to the real population.
- ii. Conduct research in several other universities that offer Surveying Basic Computation. The sample must be different ethnicity, level of achievement, gender and religion to make a comparison to identify factors affecting the level of understanding of the bearing and angle.
- iii. Diversify methods such as questionnaire survey in more detail, based on interviews with students and others.
- iv. Conduct research and treatment in the form of a control group. For example, the control class learning with conventional methods, while the treatment group learned using teaching aids. Next, the topic of teaching both classes must be the same and both class and grade control treatment is started within the same week.
- v. The study is limited to students who take the course Basic Surveying Computation in Polytechnic Merlimau Melaka. Studies like this should be expanded to teach Computation Basic Surveying or other courses in all teacher training colleges throughout the country.
- vi. Further research needs to be done to investigate the causes of the lack of teaching aids among teachers and students, especially for courses that involve calculations.

**Picture related to project (700kb)**



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