

**MEASUREMENT SKILL AMONG QUANTITY SURVEYING STUDENTS  
IN UNIVERSITI TEKNOLOGI MALAYSIA**

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## ABSTRACT

Quantity surveyor who is an important team member in construction industry plays a main role in preparing bills of quantities. Therefore measurement skill is undoubtedly the core skill of quantity surveyors even though with the penetration of information technology into measurement such as the using of specialist software. This is due to practitioners still require their personnel to be able to measure and have a detailed understanding of method of measurement in order to carry out the higher-level functions of specialist software. However the measurement skill as one of the competencies of surveying graduates was perceived to be unsatisfied by employers. Hence, the research is to identify the difficulties faced by quantity surveying students from Universiti Teknologi Malaysia in mastering measurement skill. Quantity surveying students from first, second and third years in UTM were taken as the respondents of the research. Eventually 195 sets of questionnaire have been collected and analysed using SPSS. The results denote that the greatest problem faced by quantity surveying students to master measurement skill is construction capability which includes knowledge of materials, analytical approach and assesses the closeness of match between past solutions and present need. Such a skill can be built up through working practice (e.g. industrial training, site visit) and maturity. Other constraints include character, practical capability, response activation, knowledge, information transmission, problem formulation and solution, physical characteristics and intellect. Appropriate steps must be taken to overcome the problems by the lecturers and academic management of Faculty of Built Environment for the benefit of the students.

## ABSTRAK

Juruukur bahan merupakan salah satu profesion yang penting dalam industri pembinaan dan memainkan peranan utama dalam menyediakan senarai kuantiti. Oleh itu kemahiran mengukur adalah kemahiran teras kepada juruukur bahan walaupun pada zaman ini mempunyai teknologi maklumat seperti perisian pakar yang dapat membantu juruukur bahan dalam menyediakan senarai kuantiti. Hal ini disebabkan juruukur bahan masih memerlukan pengamal yang mempunyai fahaman kaedah ukuran yang mendalam untuk menjalankan fungsi-fungsi perisian pakar pada peringkat yang lebih tinggi. Walau bagaimanapun, kemahiran mengukur yang merupakan salah satu kompetensi pelajar ukur bahan tidak memuaskan majikan. Oleh itu, kajian ini bertujuan untuk mengenal pasti kesulitan-kesulitan yang dihadapi oleh pelajar ukur bahan di Universiti Teknologi Malaysia dalam menguasai kemahiran membuat kerja pengukuran. Pelajar ukur bahan UTM dari tahun satu, dua dan tiga diambil sebagai responden kajian. Akhirnya 195 set soal selidik telah dikumpul dan dianalisis dengan menggunakan perisian SPSS. Hasilnya menunjukkan bahawa masalah terbesar yang dihadapi oleh pelajar ukur bahan dalam menguasai kemahiran pengukuran ialah kemahiran industri binaan termasuk pengetahuan bahan binaan, pendekatan analitikal dan menilai penyelesaian-penyelesaian lepas dan keperluan masa kini. Kemahiran ini boleh dibina melalui amalan kerja (contohnya latihan industri, lawatan tapak binaan) dan kematangan. Kesulitan lain termasuk personaliti, kemampuan praktikal, respons pengaktifan, pengetahuan, penghantaran maklumat, perumusan masalah dan solusi, ciri fizikal dan intelek. Langkah-langkah yang tepat perlu diambil oleh pensyarah dan pengurusan akademik Fakulti Alam Bina untuk mengatasi masalah ini bagi menjaga kepentingan para pelajar.