



## Assessing Training Needs for Building Surveying Practitioners

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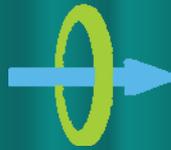
## Background

- Since 1990s, universities in Hong Kong have changed from elite to mass education.
- This change induces that student admission is about access rather than selection.
- Student is treated as customer.



## Background

- Curriculum is market driven to attract the customers to choose (Mok, 2000).
- This change induces large influx of building surveying (BS) graduates entering the building surveying profession.



- 2 majors working areas: maintenance of buildings and building control.

## Study on Training Needs

- Building operation and maintenance personnel must be trained to deliver high quality service (Arditi and Gunaydin, 1999).
- In order to explore relevant areas of training and education, this study was carried out based on the perceptions of BS practitioners on the importance of training variables for ranking the required training areas.

## Targeted Respondents

- BS practitioners at technical level who have been graduated from a sub-degree programme for a few years and have become the frontline and middle management personnel to ensure quality of works.
- 27 training statements were derived based on RICS & HKIS training requirements for the Assessment of Technical Competence (ATC).
- The 27 training statements composes of 2 major groups of skills, i.e. generic skills and actual job skills.

## Generic Skills

- The ingredients for developing a successful building surveying career, such as communication skills, language and computer proficiency.



## Actual Job Skills

- The technical know-how and techniques on finishing particular practices of building surveying.



## Questionnaire Survey

- Respondents to rate perceived importance of the 27 training variables, using seven-point Likert's scale (1 = least important while 7 = most important).
- Various means were employed to despatch the questionnaires, such as fax, e-mails, website collection from past graduates.
- Finally 51 valid samples were received for SPSS analysis.

Item	Training Variables	Mean <sup>1</sup>
1.	Communication and coordination skills with your colleagues and supervisors	5.489
2.	Communication and coordination skills with contractors	5.468
3.	Communication skill on customer (user) care	5.447
4.	Communication and coordination skills with client	5.319
5.	Ability to diagnose building defects for remedy	5.319
6.	Survey report writing skills (in English)	5.192
7.	Ability to conduct condition survey independently	5.106
8.	Application of building and development control legislations for licensed premises, A&A works and new building works	5.043
9.	Understanding and application of Building Regulations to deal with dangerous buildings and unauthorized building works	4.978
10.	Supervisory skills for building works	4.936
11.	Knowledge and understanding in information technology	4.851
12.	Skill in conducting site meeting or coordination meetings	4.809
13.	Ability to formulate planned maintenance programme	4.787
14.	Understanding building services installations and their application on A&A works	4.766
15.	Training for cost estimate and measurement of building works	4.596
16.	Training in environmental protection and sustainable construction	4.596
17.	Ability to evaluate consultants' or supplier' proposals	4.576
18.	Ability to perform contract administration for managing building works	4.532
19.	Scrutiny of fitting-out proposal for compliance with relevant regulations and Deed of Mutual Covenant for property management purpose	4.511
20.	Training for construction safety	4.468
21.	Skills for writing specification and method statement	4.447
22.	Ability to perform tender analysis and prepare tender report	4.447
23.	Understand and evaluate test results for material selection	4.277
24.	Survey report writing skills (in Chinese)	4.255
25.	Understanding and application of structural design and analysis on building works proposal	4.213
26.	Manual drafting skills	4.149
27.	Auto-CAD drawing skills	4.085

Valid sample size: 51, <sup>1</sup>Scoring system scale of 1-7: 1 least important, 7 most important, <sup>2</sup>Total scale Cronbach's alpha figure: 0.945, **Table 4: Ranking of mean scores of training variables**

Item	Training Variables	Mean <sup>1</sup>	Generic or Actual Job Skills
1	Communication and coordination skills with your colleagues and supervisors	5.489	Generic skill
2	Communication and coordination skills with contractors	5.468	Generic skill
3	Communication skill on customer (user) care	5.447	Generic skill
4	Communication and coordination skills with client	5.319	Generic skill
5	Ability to diagnose building defects for remedy	5.319	Actual job skill
6	Survey report writing skills (in English)	5.192	Generic skill
7	Ability to conduct condition survey independently	5.106	Actual job skill
8	Application of building and development control legislations for licensed premises, A&A works and new building works	5.043	Actual job skill

<sup>1</sup>Scoring system scale of 1-7: 1 least important, 7 most important  
**Table 5: Highest mean scores of 8 most important training variables**

## Results

- Among the extracted 8 training variables, 5 variables belong to generic skills while 3 variables belong to actual job skills.
- Generic skills are more important. In particular, all the 4 communication related skills obtain the highest importance ratings.
- BS practices are teamwork in nature and requires greater amount of human interaction.

## Results

- The highest mean scores (i.e. 5.319, 5.106 & 5.043 respectively) of the three actual job skills are:
- Ability to diagnose building defects for remedy;
- Ability to conduct condition survey independently
- Understanding and application of Building Regulations to deal with dangerous buildings and unauthorized building works.



## Results

- All are related to the maintenance of buildings and application of building regulations for the scrutiny or preparation of building works proposal which are the traditional specialism for the building surveying professional in Hong Kong.



Item	Training Variables	Mean <sup>1</sup>	Generic or Actual Job Skills
1	Training for construction safety;	4.468	Actual job skill
2	Skills for writing specification and method statement;	4.447	Actual job skill
3	Ability to perform tender analysis and prepare tender report;	4.447	Actual job skill
4	Understand and evaluate test results for material selection;	4.277	Actual job skill
5	Survey report writing skills (in Chinese);	4.255	Generic skill
6	Understanding and application of structural design and analysis on building works proposal;	4.213	Actual job skill
7	Manual drafting skills;	4.149	Generic skill
8	Auto-CAD drawing skills.	4.085	Generic skill

<sup>1</sup>Scoring system scale of 1-7: 1 least important, 7 most important  
 Table 6: 8 training variables with the lowest mean scores.

## Results

- Among these 8 training variables, 5 variables belong to actual job skills and 3 variables belong to generic skills.
- The 5 training variables are related to actual job skills which are greatly concerned by the professional level rather than the technical level. The practitioners at technical level will then comply with the stipulated requirements for carrying out the daily works.

## Results

- English writing is still much more important than the Chinese. Traditionally building surveying students are usually trained to equip the necessary writing skill for English survey report while Chinese writing skill is neglected.

## Results

- The two training variables related to drafting skills, no matter manual or computer aid, are considered as the least important. These findings generally match with the traditional building surveying practices that drafting is not the regular duty for the building surveying practitioners.

## Conclusion

- Answer to the research question,
- 'To what level the building surveying practitioners have perceived the importance of the training variables in dealing with the current building surveying practices?'



## Conclusion

- Overall the building surveying practitioners have perceived the importance level just above the average level, i.e. the neutral figure of 4. The above analysis generally depicts that the building surveying practitioners reckon that selected training variables are important in dealing with the current building surveying practices.

## Conclusion

- The outcome of this study could serve as an index to formulate the provisions for training and education for building surveying practitioners since they will have the higher interests to participate in the training or educational programmes which they consider to be important for them.
- As the market is changing all the time and the demand for the building surveying practitioners is also changing, the survey should be regularly reviewed to reflect the updated views of the building surveying practitioners.

