

PROPOSAL FOR EVALUATION METHODOLOGY OF  
COMPETENCY BASED PROJECT  
MANAGEMENT TRAINING

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## ABSTRACT

The Jabatan Kerja Raya (JKR) Malaysia or Public Works Department, has undertaken a reform of its current approach of managing its construction project implementation, to a project management approach guided by Project management Body of Knowledge (PMBOK). This process has required an intended to develop the JKR employee competency in project management. Series of short training were implemented. Evaluation methods of the training transfers need to be carry out to determine the training objectives achieve. The purpose of this study is to propose the evaluation method of competency based project management training (CBPMT). This study specific aimed is to determine the training program transfer towards JKR's professional competency dimensions, knowledge and skills after attending the CBPMT program. Out of 83 structured questionnaires distributed to JKR's professional who had attended the CBPMT program, 71 respondents gave their feedback. From 50 questionnaires distributed to JKR professionals who never attend the training program, 30 has responded and they were treat to become as the control group since no pre-test was conducted for the training.

The Kirkpatrick's framework was used for evaluation of training in assessing the trainees' competency dimensions which are reaction, learning, and behavior. Three session interviews were conducted with JKR key informants (experts) and ex-trainees provided supplemental information, especially on the training objectives. The data was analyzed using "Statistical Package for Social Science" (SPSS) version 11. The results showed that the training program has improved the JKR's professional knowledge and skills, a significant difference between professional who never attend and professional who had attended the program even though it was not so high. Analysis using the Pearson correlation indicates that there is significant correlation between trainees' reaction and performance but there is no correlation between trainees' knowledge and skills with performance. Therefore the training program, had improved the JKR's professional knowledge and skills but there was areas on the program should be improve to increase more towards trainees knowledge and skills specifically. Further analysis towards the program itself must be carrying out besides assessing the training transfer only.



## ABSTRAK

Jabatan Kerja Raya Malaysia, telah mengambil langkah reformasi terhadap pendekatannya di dalam mengurus pelaksanaan projek-projek pembinaannya, daripada yang sedia ada kepada pendekatan baru iaitu pengurusan projek, yang menggunakan "Project Management Body of Knowledge (PMBOK) sebagai panduan. Proses pendekatan ini telah menyebabkan keperluan mendesak terhadap pembangunan kompetensi pegawai-pegawai professional JKR di dalam bidang pengurusan projek. Beberapa siri kursus pendek telah dijalankan. Kaedah penilaian kepada keberkesanan kursus perlu dibina dan dilaksanakan di dalam memastikan objektif kursus benar-benar tercapai. Tujuan kajian ini dijalankan adalah bagi mencadangkan kaedah pengukuran kompetensi berasaskan kursus pengurusan projek. Sasaran sebenar kajian ini adalah untuk mengenalpasti kesan perubahan yang boleh disumbangkan daripada kursus kepada dimensi-dimensi kompetensi pegawai professional JKR, seperti, pengetahuan dan kemahiran setelah mereka tamat menghadiri kursus. Daripada 83 set borang soalan selidik yang telah diedarkan kepada pegawai professional JKR yang telah menghadiri kursus berasaskan kompetensi pengurusan projek, 71 orang telah memberi maklumbalas dan mengembalikan soalan selidik. Daripada 50 borang soalan selidik yang telah diedarkan kepada pegawai professional JKR yang tidak menghadiri kursus, 30 telah dikembalikan, dan mereka ini dijadikan sebagai kumpulan kawalan kerana tiada pengukuran sebelum kursus dijalankan terhadap pelatih kursus.

Rangka kerja Kirkpatrick telah digunakan untuk penilaian kursus bagi pengukuran dimensi-dimensi kompetensi pelatih seperti reaksi mereka terhadap kursus, pembelajaran, dan perangai mereka. Sebanyak tiga sesi temubual telah dijalankan bersama pakar JKR yang juga pemberi maklumat terhadap kursus yang dijalankan dan beberapa orang bekas pelatih kursus semasa edaran dan kutipan soalan dibuat. Mereka telah member maklumat yang diperlukan seperti objektif kursus dan lain-lain maklumat tambahan. Data yang dikumpul dianalisa menggunakan perisian "Statistical Package for Social Science" (SPSS) versi 11. Keputusan daripada analisa menggambarkan bahawa kursus telah berjaya meningkatkan ilmu dan kemahiran pelatih dan ujudnya perbezaan yang signifikan diantara kumpulan kawalan dan kumpulan yang telah hadir kursus. Manakala, analisa melalui korelasi Pearson, menunjukkan terdapatnya hubungan antara reaksi pelatih dengan prestasi kerja mereka. Walaubagaimanapun bagi hubungan di antara pembelajaran yang diterima dan prestasi kerja, analisa korelasi Pearson menunjukkan tidak terdapat sebarang hubungan yang signifikan. Kajian mendapati terdapatnya peningkatan ilmu dan kemahiran yang sedikit terhadap pelatih kursus. Ini memerlukan kepada penambahbaikan kepada kursus yang dijalankan. Analisa lanjut perlu dijalankan terhadap program kursus tersebut terhadap prinsip amalan baik bagi program kursus ini disamping hanya menilai kesan diberi kepada pelatih daripada kursus.

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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Introduction**

Managing a project, especially a construction of infrastructure project that related to physical assets that can be exploited to achieve social and economic ends involves with many challenges. Many problems have to be solved between the initial idea for a new assets, through it realization on site, to the client starting to exploit it. All modern societies and economies are dynamic, the only certainty is change. Many of these changes are the result of unforeseen interactions of complex forces, but societies also change through deliberate action, and one of the most importance forms of deliberate action is to invest in physical assets which can then be exploited to provide the goods, services and symbols that society needs. Government invest in schools to provide education services, roads and bridges to provide transport services, hospitals to provide health care services, stadiums and gyms to provide sports services and others infrastructures that society needs.

Project management and the management of projects, have become a popular terms to everybody who involves in construction industry. Construction projects have been managed since time immemorial. Traditionally, this was the responsibility of the master of the works where a concept retained in the modern French maitre d' oeuvre, but the emergence of a concept of project management is a phenomenon of the nineteenth century. Project management emerged as industrial societies started to build complex system such as rail and power networks. This concept was adopted by the US aircraft industry in the 1920s, came to maturity in the

US defense programme in the 1950s and gained international attention with the space programme in the 1960s.

Project management is essentially an organizational innovation, the identification of a team responsible for ensuring the effective delivery of the project mission for the client. However, it has become associated with a particular set of tools and techniques, most notably the critical path analysis which has stunted its development. Peter Morris (1994) argues strongly that project management is about the total process, not just about realizing a specification to time, cost and quality. For this reason, he distinguishes the management of projects as a strategic approach from project management as a toolbox approach to delivering the project mission.

Project management by definition is the application of modern management techniques and systems to the execution of a project from start to finish, achieving predetermined objectives of scope, quality, time and cost, to the equal satisfaction of those involved. Project management is also known as an application of the knowledge, skills, tools and techniques during the project activities in order to meet or surpass the needs and expectations of all the participants interested in the project results.

Few organizations get the most out of their programmes and projects. Intelligently adapting an organization's current approach to adopt the features of best-practice management approaches can lead to considerable benefits. It will ensure objectives are realistic and will produce optimum benefit. It will seek to deliver the goals with no surprise. It will ensure everything is done to optimize the overall benefit to the organization, despite changes to the business, changes in the economy and the inevitable snags along the way. Each project should have a proper definition, for example: objectives, budget, performance measures, accountabilities and timescale. It should follow well-defined project management processes, designed to ensure it stays on track to deliver optimum benefit. To have any degree of confidence in the outcome of a project you need to put in place the right people with the right combination of skills. They should work with the best practice processes and tools to make sure the project is properly defined and run. This needs to be in place before the work starts.



In ensuring the right people with the right combination of project management knowledge and skills, many organizations believe training is one of the tools that can help an organization to develop their people competency. Training is a key strategy for human resources development and in achieving organizational objectives. Organizations and public agencies invest large amounts of resources in training, but rarely have the data to show the results of that investment. Only a few organizations evaluate training in depth due to the difficulty involved and the lack of valid instruments and viable models, (Pilar, 2010). Training is one of the components of human resource management (HRM) after the recruitment and selection component. Human resource development (HRD) is an ongoing process to develop workers' abilities and skills. Performance appraisal and feedback is the third component, which provides information about how a trained, motivated and rewarded worker, manager then evaluates and gives feedback to enhance worker performance, (McGraw Hill Companies Inc., 2000).

Globalization has influenced very much the way organizations manage their human resources. Competency is looked upon as the answer to globalization. Through its integration with human resource practices, competent workers who possess competencies (skill, knowledge and abilities) as needed by the organizations will be hired and more of their capabilities will be boosted further through training and then rewarded for their demonstrated and potential competencies. These kinds of workers are very much of an asset. Malaysian public service started to use competency-based human resource practices at the end of year 2002 as the response to increase the level of service quality. In Malaysian public service, out of six competency-based human resource practices, only five practices are implemented. They are recruitment and selection, training and development, career development, performance management and reward. After five years of implementation, there is a need to determine the dimensions of competency-based human resource practices in Malaysian public service, (Ilhaamie, 2009).

Competency-based training (CBT) is one of the favorite and popular widely used as human resource development tools. This type of training can transform an organization into high-performance, efficient, customer-focused and resulting their dream success coming true in their competitive industry.

At the same time an organization must maintain their sustainable growth, organizations have to continuously invest in sharpening and develop the skills of their employees so as to reduce the gap between the requirements of the organizations and the capabilities of the employees. Competency based training is one of the training and development useful tools in minimizing this gap.

Today, after a growing number of training programs are being developed and implement by many organization, the evaluation on training program practice is one of the major dilemmas faced in the field of evaluation because it receives much criticism. As Phillips (1991) states, when it comes to training evaluation, there still appears to be more talk than action. In many organizations, evaluation of training either is ignore or is approached in an unconvincing or unprofessional manner.

Training evaluation is a systematic process of collecting and analyzing information for and about a training program which can be use for planning and guiding decision making as well as assessing the relevance, effectiveness or the impact of various training components (Raab et al., 1991). Previous literature (Smith, 1990); Davidore and Schroeder, 1992; Shelton and Alliger, 1993; Shamsudin 1995) demonstrates that the practices of evaluation in training are unsystematic and they are based on simple means.

This research has used the Kirkpatrick's framework for evaluation of competency based project management training (CBPMT) in assessing the trainees' competency dimensions, learning and behavior and not excluded their reaction towards the training program. Research findings and results will help the researcher to recommend a method that can be use in evaluating competency based project management training, and at the same time it can become a basis to the training designer to improve the training program to become more effective in future.