

# Building of the Core Functions and Functional Courses of Public Departments - A Case Study of an Institution

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**Abstract-** This study aims to discuss the hierarchy of the A institution, namely the core functions entailed by personnel of rank nine positions or below, through literature review and questionnaire. By building core functions, this study attempts to develop courses related to on-job training and to draft a learning map that integrates the functions, learning resources and career development of personnel at all levels. This study found that in the rankings of dimensions of core functions, in terms of the appointment of associate chief managers, the most important dimension is leadership; while team building matters the most for the appointment of associate non-managers. With respect to the junior ordinary personnel, initiative marks the indicator of greatest importance. Based on the above results, this study serves as a reference for organizations' plans for education and training as well as personal capability development.

**Keywords:** core function, function, Delphi Method, Analytical Hierarchy Process, definition

## I. INTRODUCTION

The rapid changes taking place in recent years have triggered the heated topic of competency among the public and private sectors in Taiwan that aim at remaining competitive. Meanwhile, the introduction of the competency model to public and private sectors has seemed to become a popular trend.

Therefore, this study takes the middle-level and entry-level personnel of the Coast Guard Administration of the Executive Yuan as the research subjects, uses the literature review and Delphi Method to define the qualifications and functions that middle managers, middle personnel and entry-level personnel should have, adopts the Analytical Hierarchy Process (AHP) to formulate a course model form for the function training of the above three types of employees, and analyzes how much attention paid by personnel to courses regarding core functions. The results of this study will contribute to the cultivation and appointment of personnel for the Coast Guard Administration of the Executive Yuan and serve as a mirror for the development path of current personnel's functions.

## II. LITERATURE REVIEW

### A. *Definitions, connotations and related theories of the function and function model*

#### (1) Definition and connotation of the function

In recent years, more and more organizations have adopted function to measure the method of changing employees' behavior. There are multiple definitions of function. Judging from the development of the definition by multiple scholars, function is no longer only the "currently owned" knowledge, skills and traits. Instead, it has been extended to the interaction with the "surrounding environment". Moreover, it has been further expanded to be a kind of concept "relative to work" that can be enhanced through "continuous learning" and "training".

#### (2) Definition and connotation of the function model

A function model describes the skills and traits entailed by an employee to work more efficiently. Based on such model, an organization can utilize, assess and develop its internal human resources more efficiently. In addition, its personnel can know what is required by the function model so that they can raise their awareness of the difference between “what they have” and “what they should have”, thus motivated to fulfill their functions actively at work. The organization can also improve its personnel’s knowledge and skills via training so that they can yield better performance and achieve their work goals.

(3) Status quo of the promotion of function in Taiwan’s public institutions

This study integrates the results of function promotion in several public institutions (the Examination Yuan; Civil Service Protection & Training Commission; Directorate-General of Personnel Administration, Executive Yuan; and Civil Service Development Institute, Kaohsiung City), in which the personnel ranging from senior-level, middle-level to entry-level are taken as subjects. The core functions vary from one administrative level to another, but the governmental official promotion system of Taiwan requires that the senior- and middle-level personnel fulfill the functions of their entry-level counterparts.

*B. Function-oriented training and course planning*

From the perspective of human resources, the only way for the constant growth and lasting development of an organization is the improving ability and performance of its employees. Therefore, an organization with limited resources should focus its talent cultivation and development on function and adapt its human resources to what the organization wants to achieve. Thus, this section will discuss training and formulate a function-based learning map that combines training with career.

(1) Function-oriented learning map

To enable the middle-level and entry-level personnel of the Coast Guard Administration to explore and build the prototype of such learning map, this study, based on literature review, probed into the functions required by the middle-level and entry-level personnel of the Coast Guard Administration, and drafted a learning map that embraces the core, professional and management functions of personnel at all levels.

(2) Function course planning

Directorate-General of Personnel Administration, Executive Yuan conducted a survey regarding the professional core ability of 25 local public institutions including the Kaohsiung Municipal Government in 2008. After selecting core abilities, it described the standards of conduct for different official ranks, and then researched and formulated the relevant supporting courses for core abilities. The Talent Development Institute for Local Government, DGPA, Executive Yuan issued the *Plan for the Function Development and Training of Personnel of Local Administrative Institutions at All Levels* that provided courses recommended for different functions in 2010.<sup>1</sup> In addition, the Examination Yuan formulated a learning map for senior public servants, providing personal development guidance and functions for senior officials.

### III. RESEARCH METHOD

In order to build the core functions for the associate chief managers, associate non-chief managers and junior personnel of the Coast Guard Administration of the Executive Yuan, this study reviewed relevant literature and adopted the Delphi Method to carry out a questionnaire survey for the hierarchical framework of core functions respectively performed by associate chief managers, associate non-chief managers and junior personnel. Finally, this study used the AHP to calculate the weight of all indicators and verify their consistency.

*A. Research subjects*

This study adopted the Delphi Method and AHP to analyze the core ability of associate senior managers, associate non-chief managers and junior personnel that were appointed by an institution and have served for over a decade with abundant experience. Proceeding from such analysis, this study investigated and re-analyzed the courses corresponding to certain core ability.

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<sup>1</sup> Talent Development Institute for Local Government, DGPA, Executive Yuan, *Plan for the Function Development and Training of Personnel of Local Administrative Institutions at All Levels*, November 24, 2010.

*B. Building a hierarchical framework*

This study takes the results of the second round of the Delphi questionnaire as the AHP framework that is divided to three major goals, each of which incorporates four to five dimensions. Each dimension will serve as an indicator for the assessment corresponding to the course regrading different core functions mentioned in the literature. Totally, there are 60 indicators for the assessment of the importance attached by the personnel to their core ability:

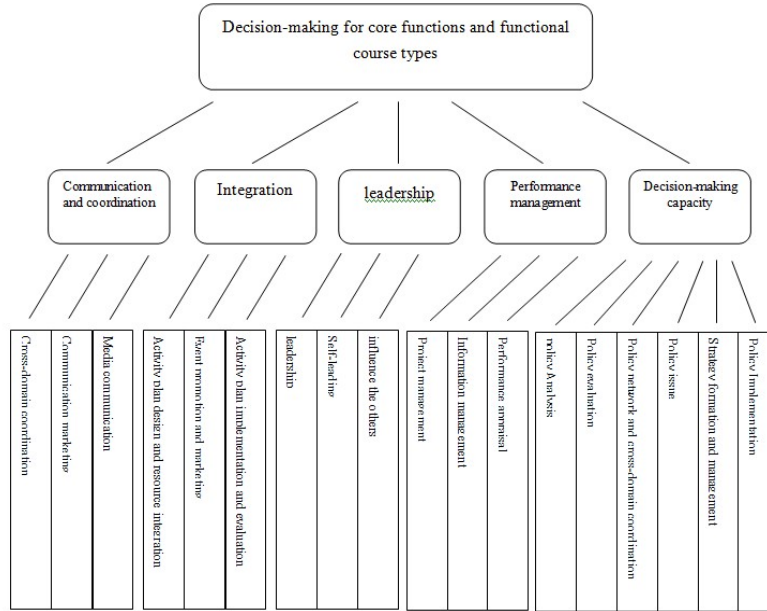


Figure 1 Recommended hierarchy of core functions and functional courses

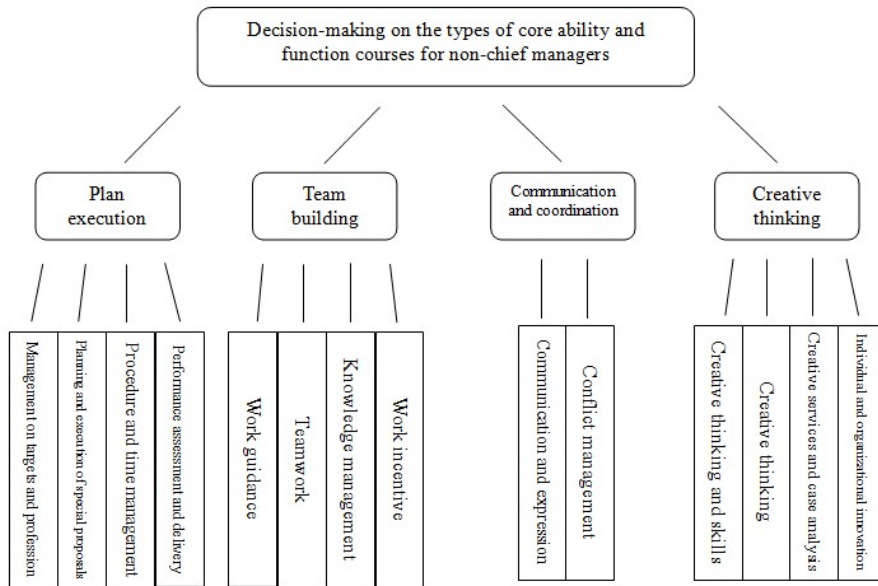


Figure 2 Recommended preliminary level structure diagram of non-supervised core functions and functional courses

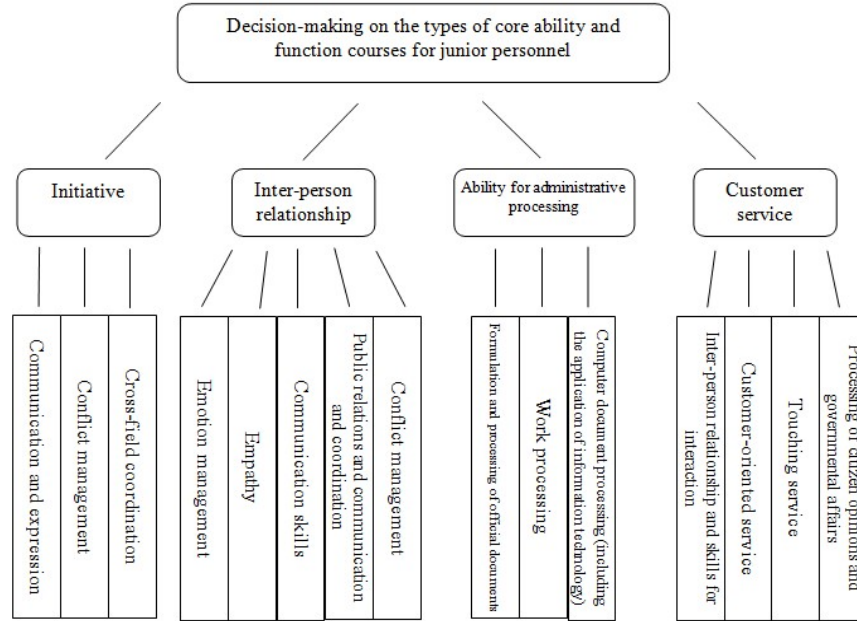


Figure 3 Preliminary hierarchy diagram of the core functions and functional courses of the appointed staff

#### IV. EMPIRICAL RESULTS

##### A. AHP results

This study has collected 27 valid questionnaires and the evaluated value of each matrix is the geometrical average. First of all, the results of questionnaires were analyzed. After comparing the results, the calculated max, weighted vector  $w$  and consistency of the comparative matrix are shown as follows:

Analysis of the results of the questionnaires for the five dimensions of the core functions of associate chief managers:

Core ability of associate chief managers	Leadership	Decision-making	Performance management	Coordination and communication	Ability for integration	Weight	Ranking
Leadership	1	5.543	4.580	2.072	2.768	0.439	1
Decision-making	0.180	1	0.582	2.551	4.600	0.192	2
Performance management	0.218	1.719	1	2.047	2.447	0.175	3
Coordination and communication	0.483	0.392	0.489	1	1.298	0.111	4
Ability for integration	0.361	0.217	0.409	0.771	1	0.083	5

C.I.= 0.161<0.1, C.R.= 0.144<0.1

Analysis of the results of the questionnaires for the four dimensions of the core functions of associate non-chief managers:

Core ability of associate non-senior managers	Plan execution	Team building	Communication and coordination	Creative thinking	Weight	Ranking
Plan execution	1	0.795	1.947	1.823	0.285	2
Team building	1.258	1	3.938	2.620	0.420	1
Communication and coordination	0.514	0.254	1	1.884	0.163	3
Creative thinking	0.549	0.382	0.531	1	0.133	4

C.I.= 0.039<0.1, C.R.= 0.043<0.1

Analysis of the results of the questionnaires for the four dimensions of the core functions of junior personnel:

Core ability of junior personnel	Initiative	Ability for administrative processing	Inter-person relationship	Customer service	Weight	Ranking
Initiative	1	2.494	1.978	2.415	0.416	1
Ability for administrative processing	0.401	1	2.884	0.834	0.239	2
Inter-person relationship	0.505	0.347	1	1.200	0.164	4
Customer service	0.414	1.200	0.833	1	0.181	3

C.I.= 0.081 C.R.= 0.090

(1) Analysis of the importance of secondary principles for the leadership of associate chief managers

	Leadership	Self-discipline	Impact on others	Weight	Ranking
Leadership	1	4.926	0.939	0.479	1
Self-discipline	0.203	1	2.294	0.263	2
Impact on others	1.065	0.436	1	0.258	3

C.I.= 0.375 C.R.= 0.647

(2) Analysis of the importance of secondary principles for the decision-making of associate chief managers

	Policy analysis	Policy assessment	Policy network and cross-field coordination	Confirmation on policy-related problems	Policy formulation and management	Policy execution	Weight	Ranking
Policy analysis	1	2.496	2.267	2.965	2.323	2.323	0.269	1
Policy assessment	0.401	1	0.759	2.089	0.927	2.467	0.171	2
Policy network and cross-field coordination	0.441	1.317	1	0.996	1.230	4.926	0.127	4
Confirmation on policy-related problems	2.965	0.479	1.004	1	1.069	1.846	0.163	3
Policy formulation and management	0.430	1.079	0.813	0.935	1	1.309	0.100	5
Policy execution	0.430	0.405	0.203	0.542	0.764	1	0.058	6

C.I.= 0.085 C.R.= 0.064

(3) Analysis of the importance of secondary principles for the performance management of associate chief managers

	Plan management	Information management	Performance assessment	Weight	Ranking
Plan management	1	1.431	1.131	0.381	2
Information management	0.699	1	0.524	0.233	3
Performance assessment	0.884	1.908	1	0.386	1

C.I.= 0.009 C.R.= 0.016

(4) Analysis of the importance of secondary principles for the communication and coordination of associate chief managers

	Communication and marketing	Cross-field coordination	Communication with the media	Weight	Ranking
Communication and marketing	1	1.000	1.922	0.378	2
Cross-field coordination	1.000	1	3.519	0.460	1
Communication with the media	0.520	0.284	1	0.162	3

C.I.= 0.020 C.R.= 0.035

(5) Analysis of the importance of secondary principles for the ability for integration of associate chief managers

	Event proposal and design resource integration	Event promotion and marketing	Execution and assessment of event proposals	Weight	Ranking
Event proposal design and resource integration	1	1.303	1.133	0.366	2
Event promotion and marketing	0.767	1	0.417	0.222	3
Execution and assessment of event proposals	0.883	2.398	1	0.412	1

C.I.= 0.030 C.R.= 0.052

(6) Analysis of the importance of secondary principles for the plan execution of associate non-chief managers

	Management on targets and profession	Planning and execution of special proposals	Management on time and procedures	Performance assessment and delivery	Weight	Ranking
Management on targets and profession	1	2.669	0.663	2.551	0.351	1
Planning and execution of special proposals	0.375	1	1.483	1.178	0.221	3
Management on time and procedures	1.509	0.675	1	1.489	0.273	2
Performance assessment and delivery	0.392	0.849	0.672	1	0.155	4

C.I.= 0.099 C.R.= 0.100

(7) Analysis of the importance of secondary principles for the team building of associate non-chief managers

	Work guidance	Team building	Knowledge management	Work incentive	Weight	Ranking
Work guidance	1	1.205	4.290	2.546	0.422	1
Team building	0.830	1	2.496	1.109	0.276	2
Knowledge management	0.233	0.401	1	0.988	0.124	4
Work incentive	0.393	0.902	1.012	1	0.177	3

C.I.= 0.030 C.R.= 0.034

(8) Analysis of the importance of secondary principles for the communication and coordination of associate non-chief managers

	Communication and coordination	Conflict management	Weight	Ranking
Communication and coordination	1	2.825	0.739	1
Conflict management	0.354	1	0.261	2

C.I.= 0 C.R.= 0

(9) Analysis of the importance of secondary principles for the creative thinking of associate non-chief managers

	Creative thinking and skills	Creative thinking and incentives	Creative services and case analysis	Personal and organizational innovation	Weight	Ranking
Creative thinking and skills	1	1.074	2.815	2.072	0.368	1
Creative thinking and incentives	0.931	1	1.299	2.440	0.306	2
Creative services and case analysis	0.355	0.770	1	1.304	0.182	3
Personal and organizational innovation	0.483	0.410	0.767	1	0.144	4

C.I.= 0.021 C.R.= 0.024

(10) Analysis of the importance of secondary principles for the initiative of junior personnel

	Work efficiency	Ability to take on responsibilities	Self-value	Weight	Ranking
Work efficiency	1	0.735	2.447	0.371	2
Ability to take on responsibilities	1.361	1	2.618	0.465	1
Self-value	0.409	0.382	1	0.164	3

C.I.= 0.003 C.R.= 0.006

(11) Analysis of the importance of secondary principles for the inter-person relationship of junior personnel

	Emotion management	Empathy	Communication skills	Coordination and communication of inter-person relationship in public affairs	Conflict management	Weight	Ranking
Emotion management	1	1.205	0.968	1.869	2.146	0.247	2
Empathy	0.830	1	1.195	2.514	1.176	0.234	3
Communication skills	1.033	0.837	1	2.786	2.447	0.261	1
Coordination and communication of inter-person relationship in public affairs	0.535	0.398	0.359	1	2.465	0.141	4
Conflict management	0.466	0.851	0.409	0.406	1	0.116	5

C.I.= 0.064 C.R.= 0.057

(12) Analysis of the importance of secondary principles for the ability for administrative processing of junior personnel

	Formulation and processing of governmental documents	Work processing	Computer-based documents (including the application of information technology)	Weight	Ranking
Formulation and processing of governmental documents	1	1.921	1.478	0.456	1
Work processing	0.520	1	0.884	0.249	3
Computer-based documents (including the application of information technology)	0.677	1.131	1	0.295	2

C.I.= 0.001 C.R.= 0.002

(13) Analysis of the importance of secondary principles for the customer service of junior personnel

	Inter-person relationship and interaction skills	Touching services	Customer-oriented services	Processing of public opinions and governmental affairs	Weight	Ranking
relationship and interaction skills	1	1.074	1.610	4.963	0.374	1
Touching services	0.931	1	2.242	2.694	0.339	2
Customer-oriented services	0.621	0.446	1	2.156	0.192	3
public opinions and governmental affairs	0.201	0.371	0.464	1	0.095	4

C.I.= 0.021 C.R.= 0.024

*B. Comprehensive analysis*

The comprehensive scoring leads us to the ranking of weight. From this chart, we can know more about the relative importance among all factors, which enables employees to conduct self-assessment and formulate the most suitable personal function courses when selecting their own courses regarding core functions.

Principles	Weight of principles	Secondary principles	Weight of secondary principles	Comprehensive weight	Ranking
Performance management	0.175	Plan management	0.381	0.0667	5
		Information management	0.233	0.0408	9
		Performance assessment	0.386	0.0676	4
Coordination and communication	0.11	Cross-filed coordination	0.46	0.0506	7
		Communication and marketing	0.378	0.0416	8
		Communication with the media	0.162	0.0178	17
Leadership	0.439	Leadership	0.478	0.2098	1
		Self-discipline	0.263	0.1155	2
		Impact on others	0.258	0.1133	3
Ability for integration	0.083	Design of event proposal and resource integration	0.366	0.0304	13
		Information management	0.222	0.0184	16
		Performance evaluation	0.412	0.0342	10
Decision-making	0.192	Policy analysis	0.269	0.0516	6
		Policy assessment	0.171	0.0328	11
		Policy network and cross-field coordination	0.127	0.0244	14
		Confirmation on policy-related problems	0.163	0.0313	12
		Formulation and management of strategies	0.1	0.0192	15
		Policy execution	0.058	0.0111	18

Principles	Weight of principles	Secondary principles	Weight of secondary principles	Comprehensive weight	Ranking
Plan execution	0.285	Management on targets and profession	0.351	0.1000	4
		Planning and execution of special proposals	0.221	0.0630	7
		Procedure and time management	0.271	0.0772	5
		Performance assessment and delivery	0.155	0.0442	10
Team building	0.42	Work guidance	0.422	0.1772	1
		Teamwork	0.276	0.1159	3
		Knowledge management	0.124	0.0521	8
		Work incentive	0.177	0.0743	6
Communication and coordination	0.163	Communication and expression	0.739	0.1205	2
		Conflict management	0.261	0.0425	11
Creative thinking	0.133	Creative thinking and skills	0.368	0.0489	9
		Creative thinking	0.306	0.0407	12
		Creative services and case analysis	0.182	0.0242	13
		Individual and organizational innovation	0.144	0.0192	14



Principles	Weight of principles	Secondary principles	Weight of secondary principles	Comprehensive weight	Ranking
Initiative	0.416	Work efficiency	0.371	0.1543	2
		Self-value	0.164	0.0682	5
		Willingness to take on Responsibilities	0.465	0.1934	1
Inter-person relationship	0.164	Emotion management	0.247	0.0405	10
		Empathy	0.234	0.0384	11
		Communication skills	0.261	0.0428	9
		Public relations and communication and coordination	0.141	0.0231	13
		Conflict management	0.116	0.0190	14
Ability for administrative processing	0.239	Formulation and processing of official documents	0.456	0.1090	3
		Work processing	0.249	0.0595	8
		Computer document processing (including the application of information technology)	0.295	0.0705	4
Customer service	0.181	Inter-person relationship and skills for interaction	0.374	0.0677	6
		Customer-oriented service	0.192	0.0348	12
		Touching service	0.339	0.0614	7
		Processing of citizen opinions and governmental affairs	0.095	0.0172	15

To sum up, the above calculation results show the significance of leadership for associate chief managers in that this indicator appears for three times among five secondary principles. It shows that leadership, self-leadership and influence on others have great impact on the associate chief managers. While the “team building” is of great significance to those associate non-chief managers due to its two times of appearance in the first four secondary principles, the hard evidence of the great impact exerted by work guidance and teamwork on those associate non-chief managers. Regarding the junior personnel, the “initiative” is of paramount importance and has appeared in three of the first five indicators, indicating that the work efficiency, self-value and willingness to take on responsibilities are influential for junior personnel. This study has revealed that the individual traits have certain impact on conducts and make them predictable, and the consistency and continuity have direct influence on the decision-making model of individuals, and therefore these two elements serve as the most important factors for engagement.

## V. CONCLUSION

This study discussed the great impact exerted by the core functions of employees, associate chief managers, associate non-chief managers and junior personnel from the Coast Guard Administration of the Executive Yuan on their training courses. Then this study adopted the AHC to analyze the questionnaires and drew the conclusion of the core ability dimensions that employees pay the most attention to in terms of the associate chief managers, associate non-chief managers and junior personnel.

The function-learning map is the foundation for human resource training and contributes to the enhancement of knowledge, skills, attitude and other capabilities necessary for execution, as well as the enforcement of higher efficiency in public affairs. All institutions and education training centers should be more forward-looking and take their own development visions into account so that they can adapt their functions to the reality, immediately update their function and learning maps, improve their capability of integral human resource training and make the map a reference for ability development.

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