

Analysing Hong Kong Educational Policy: Application of a Comprehensive Framework^[1]

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INTRODUCTION

Hong Kong has successfully and swiftly transformed into a major regional centre for trade, finance and communication in the past decades. This change has largely relied on the rapid development of its economy, political structure, and other social infrastructures. Among the many advantages Hong Kong possesses, a well-educated and efficient workforce has provided the necessary vitality for the territory's success. Indeed, the future of Hong Kong is largely built on its investment in education to produce this workforce (Governor's Policy Address, 1989 & 1992; SAR Chief Executive's Policy Address, 1997). Regarding this, Hong Kong has developed a series of education policies especially after the establishment of the Education Commission in 1984. As shown in this **Handbook on Educational Policy in Hong Kong**, numerous educational policies and initiatives have been formulated to tackle the issues at different levels and in wide aspects of education in Hong Kong from 1964 to 1998.

These education policies have attracted serious criticisms both from the public and from the education field. This may be as a result of the facts that the quality of new policies often varies and the pace of policy development and implementation is fast, that the impacts of these policies on the education system and society are far-reaching and in many cases, controversial, and that the amount of investment is enormous.

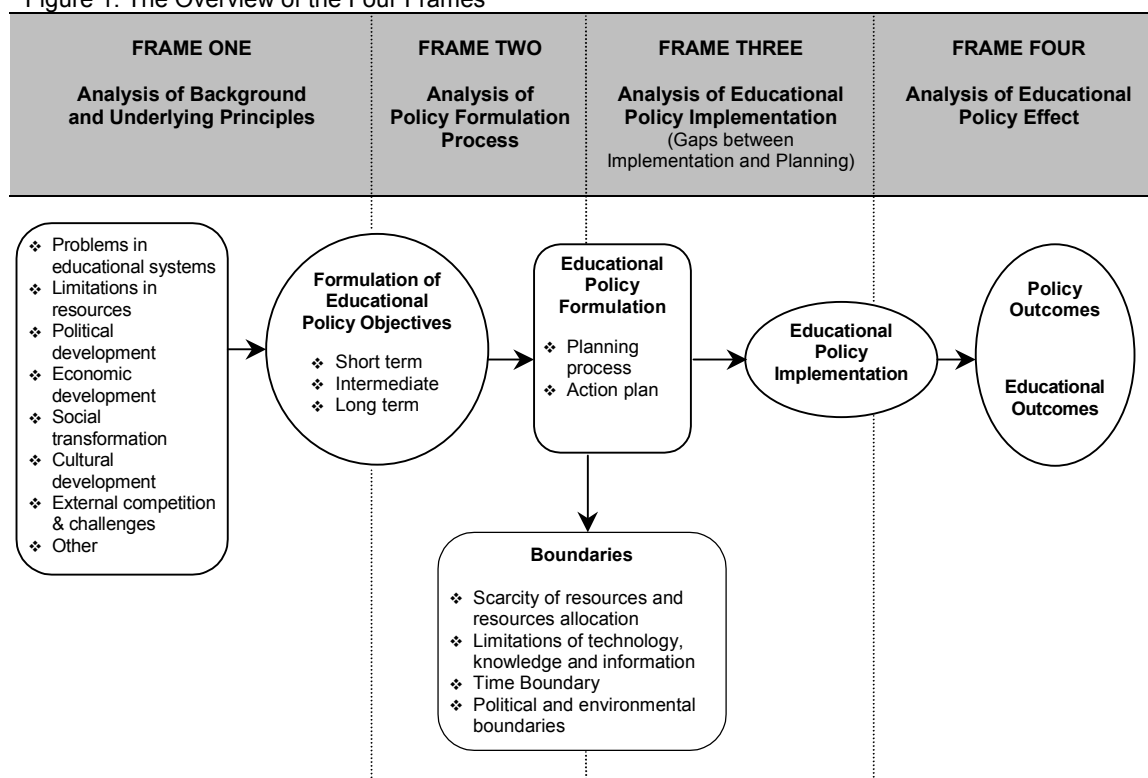
Compared with the huge investment in education, contemporary discourse on educational policies in Hong Kong has been very often trivial and fragmentary. There is an urgent need to have a comprehensive framework to support educational policy analysis and related discourses by scholars, policy makers, and interested parties. Responding to the need, this paper aims to provide a framework, with which scholars, policy makers, educators, and those concerned may have a comprehensive scope in reviewing and analysing current educational policies and related issues in Hong Kong. It is hoped that more meaningful and fruitful analysis and related discourse in the field may then be facilitated in both the local and international contexts.

THE FRAMEWORK

Policy development in general involves a process of problem identification, policy goals' establishment, generation of alternatives to achieve policy goals, evaluation of cost effectiveness of alternatives, choice of the most appropriate means, policy implementation, and policy evaluation (Harman, 1984; Mood, 1983). Based on this line of thinking, a framework specifically for analysis of educational policies can be developed as shown in Figure 1. The framework includes four frames. The first frame focuses on analysis of the background and problems of policy and the principles underlying the policy objectives and policy formulation at later stages. The second frame directs the investigation of the policy objectives, planning process, various constraints, and resulting action plans. The third frame guides the analysis of the policy implementation and identifies the gaps between implementation and planning. The fourth frame focuses on the study of the policy effects and impacts, including expected policy and educational outcomes and hidden policy outcomes at different levels.^[2]

In addition to other educational policy cases, the Target Oriented Curriculum (TOC) policy (ECR4, 1990; Advisory Committee on Implementation of TOC, 1994),^[3] which has stimulated a heated discourse in the community of Hong Kong, will be repeatedly used in this paper for illustrating the applicability and the analytical power of the framework.

Figure 1. The Overview of the Four Frames



Frame 1: Analysis of Background and Underlying Principles

The major concern of the first frame is to analyse the background and the underlying principles that affect the development of education policies. The frame may be divided into the identification of existing problems in the policy background and the analysis of principles underlying the setting of objectives for educational policy formulation.

Identification of Problems in the Background

The first concern is to analyse how existing problems in the field of educational policy are identified and justified. There are many different types of problems related to educational policy. Some are related to the existing problems in the education system. Some come from the limitations and competitions for resources. Some are associated with transition in political structure, economic development, social transformation, management of social problems, and cultural development. Some directly relate to the external competition and challenges from other countries or areas. In general, to facilitate a more comprehensive consideration, we may need to consider problems that are emerged within the education system, at societal level, and outside the society.

Problems within the education system generally attract most attention of the frontline educators and other related parties in the system. Thus, problems within the education system can be justified and mutually agreed. Problems at the societal level may arise from the society's economic development, political instability and related factors, while problems outside the society derive mainly from external competition and global trends.

Take the TOC policy as an example. The present norm-referenced education assessment system

in Hong Kong is summative and selective in nature. It does not provide the actual learning progress and the necessary information to students and teachers for formative purposes; therefore, it cannot be used to monitor learning in schools (ECR4, 1990). Moreover, it is commonly agreed among educators that the present assessment system does not guarantee that primary school graduates have acquired the primary six academic attainment level.

The above problems are acknowledged in Hong Kong's education circles. At the societal level, employers often complain the decline of proficiency in the Chinese and English language of our school leavers. This problem originates from the above stated "mis-match" of school grade and academic attainment level. The present assessment system cannot provide a clear statement of the true academic achievement of students. As a result, employers cannot locate the right people to take up jobs. Inevitably, this problem will in turn have a negative impact on the economic development of Hong Kong. Further, the recent urge for education reform in various parts of the world also pushes Hong Kong to rethink its own limitations in education service delivery.^[4]

Table 1: Frame One

Analysis of Background & Underlying Principles	
Identification of Existing Problems	
within the education system; at the societal level; from outside the society	
Principles underlying the Setting of Policy Objective	
Traditional Beliefs & Values	
•	About the needs and nature of education
•	About the nature and process of schools
•	About the relationship between education and schools and the needs of a society
Functions of Education (Functionalism)	
•	Individual: Survival, personal growth and development
•	Societal: Integration, control, selection, sorting, allocation, socialisation, social mobility, social changes, equalisation
•	Political: Socialisation, legalisation, selection, control, equalisation, political changes
•	Economic: Change of manpower structure, quality of manpower, population control, economic development
•	Cultural: Inheritance, development and creation of culture
Hidden Functions of Education (Conflict Theories)	
•	Reproduction of social classes and cultural capital
•	Perpetuation of class inequality
Philosophical Considerations	
•	Ideals of environment, inputs, processes, & outcomes of education & schools, etc.
•	Consistency among educational philosophies, educational objectives and policy objectives
Legal Considerations	
•	Legal values such as human rights, freedom, equity, balance of interests
•	Existing legal constraints
Practical Constraints	

Analysis of the Principles underlying Policy Objective Setting

The next focus is the analysis of the principles underlying the process of setting policy objective. The process of setting objective helps policy makers clarify what are to be achieved (Hackett et al., 1982). The analysis should include the following basic considerations (Table 1 refers):

Traditional Beliefs and Values:

Traditional beliefs and values of society about education, school, and society itself often dominate the line of thinking of policy-makers in establishing the objectives of educational policies (Kogan, 1985). Specifically, policy-makers tend to assume that these beliefs and values reflect the orientation of majority of the society and should be used to guide the development of educational policies that serve the society. Thus, when policy makers identify existing problems and formulate the desired ends, these beliefs and values would definitely have impacts on their judgement. For instance, the traditional belief of our society that English being more instrumental than other languages in

earning a living in an international commercial city like Hong Kong had driven the Education Commission and the Education Department a long time in the past not definitely to name Chinese, the mother tongue of majority of the students, as the medium of instruction in schools. Instead, the Education Commission had proposed a number of controversial language policies which attracted of criticisms from educationalists in the field.^[5]

Functions and Hidden Functions of Education:

Apart from traditional beliefs and values, beliefs about the functions of education also influence the principles used to set policy objectives and education objectives. The view of functionalism suggests that education has its functions at individual, societal, political, economical, and cultural levels (Blackledge & Hunt, 1985; Cheng, 1995, 1996; Parsons, 1966). Table 1 summarizes some of the important functions suggested by functionalists. In Hong Kong, this perspective of education is reflected in the central Government's statement of aims for school education (Education & Manpower Branch, 1993): at the individual level, education shapes the physical, ethical, and social development of our next generation (e.g. fundamental aims no. 2,8,9,10,11 & 14); socially and politically, it serves as a means of selection, control, and integration of citizens (e.g. aims no. 1,12 & 13); at the economic level, education helps stabilise the manpower structure and quality for economic development (e.g. aims no. 7,9,10,11 & 12); at the civilizational level, education creates, develops, and transmits the culture of our society (e.g. aim no. 15).

But from the perspectives of radical or conflict theories, there may be some hidden functions of education, such as the reinforcement of the social class structure, the reproduction of cultural capital, and the perpetuation of class inequality. There is often hot debate between the functionalists and the conflict theorists about the function of education in policy making.^[6]

Of course, different assumptions and beliefs about the functions of education may result in contrasting policy orientations in establishing policy objectives and formulating action plans. Therefore, the analysis of educational policies should first clarify the beliefs about the functions of education. Inevitably, diversity in the perspectives should be taken in consideration, even though the functionalistic perspective is often preferred by policy makers.

The functionalistic view of education also influences the formulation of the TOC policy. From its objectives, we note that the Hong Kong policy makers may hold the view that curriculum delivery in school can develop students cognitively and the associated assessment system should therefore be formative in nature to facilitate learning. Moreover, the assessment practice of the education system should be able to provide accurate information for employers to recruit the right person to work in the interests of the economic development of society.

Philosophical Considerations:

The orientations of policy makers and those concerned are also influenced by their philosophies of education. There are several important philosophies that have greatly influenced people's thinking about the ideals of environment, inputs, processes, and outcomes of education and schools. They include Idealism, Perennialism, Existentialism, Pragmatism, Essentialism, Reconstructionism, Realism, and Postmodernism (Bigge, 1982; Kneller, 1973 & 1983). The policy debate often happens among people using different philosophies to present educational goals and ideals, explain the educational processes, diagnose the related problems, and propose according to different assumptions contrasting means to set the policy objectives. In particular, consistency among educational philosophies, educational objectives, and policy objectives is an important consideration in the analysis of the principles underlying the policy objective setting.

Legal Considerations:

There are existing ordinances, regulations, and rules governing public administration in general and the educational services in particular. Therefore, the formulation of educational policy objectives and plans is necessarily within the legal framework. If the policy objectives to be set are out of the legal framework, the policy-makers have to think about the necessary legislation before establishing these policy objectives. Also, some important legal values, such as human rights, equity, freedom, balance of interest, etc., have to be considered and emphasized in setting policy objectives.

Practical Constraints:

Other crucial factors that affect the analysis of the principles underlying the policy objective setting are the practical constraints. These include the constraints on resources, time, and rationality as well as political and environmental constraints. It is under these limitations that policy makers set their short-term, intermediate, and long-term objectives. Examples are abundant. The implementation schedule of the TOC policy is one of the examples. As a result of constraints on physical and human resources and technical problems, TOC is implemented by stages starting from 1995 in the primary one level classes of 70 schools through to 2001 when it will be in all levels of all primary schools. Another example is the setting up of a long term objective to attain a 35% graduate teaching force in primary schools (ECR5, 1992) and related short term and intermediate objectives to first provide 860 graduate teacher posts in primary schools between now and 1997 (Governor's Policy Address, 1993).

To sum up, the emphasis of this frame is on the background and underlying principles (concepts and beliefs) which would probably have an impact on the formulation of objectives. On top of this, we need also to consider practical constraints that prevent policy makers from setting far-reaching objectives.

Frame 2: Analysis of the Policy Formulation Process

Subsequent to the considerations of policy objective formulation, we now examine the process of generating alternatives or means that may attain the desired ends of educational policies. We need to analyse the following areas (Table 2 refers): (a) the policy making body; (b) the decision making process; (c) the various perspectives and technology employed; and (d) the quality of the finalised policy, specifically for the education field.

The Characteristics of Educational Policy-Makers

Since the educational policy making body will formulate educational policies which have far-reaching impacts on the education system, it should have a balanced composition which represents the interests of various related parties. Thus, it is meaningful to examine the process of forming the policy making body. If members are appointed by the central Government, as are members of the Education Commission or the officers of the Education and Manpower Branch, we need to review how and to what extent they represent the interests and opinions of related parties in the education system. If members are not appointed, we need to examine the way by which they are elected and the extent of their representation.

Apart from this, the expertise and experience, as well as other personal qualities, of the policy makers are also important to the development of educational policy. For example, it may not be rewarding for a policy making body, which comprises of no or limited expertise in secondary education, to develop policies related to secondary schooling.

For the target and target-related assessment (TTRA) policy, only two out of seventeen appointed members of the Education Commission were from the primary education sector and the number increased to four out of twenty in the later formed Advisory Committee on the Implementation of TOC. With this limited representation of primary school frontline practitioners through official appointment, two shortcomings may emerge. Since the policy is implemented in primary schools, the interest of the practitioners in primary schools may not be fully catered for in the policy making. Further, the possible implementation difficulties might not be truly reflected. Therefore, it is not surprising that the announcement and implementation of this policy have faced many criticisms and resistance from both the public and schools.

The Characteristics of the Process

Another area for analysis is the decision making process of educational policy. The foci are on how decisions are made, are decisions made solely by the policy makers, and is the participation from the public invited? In the 1970s and early 1980s, educational policies were developed by the central Government and consultation from those who were affected by the policies was usually not invited during the development stage (Llewellyn, Hancock, Kirst, & Roeloffs, 1982).

Under the present political climate in Hong Kong, the public needs a chance to participate democratically and openly in the process of decision making. Policy makers should enable a policy-related discussion such that the public's participation becomes one of the forces in shaping educational policies. Examples are the consultation practices of the Education Commission Reports in recent years (ECR 1 to 7). However, merely providing chances for the public to openly participate in the discussion is not enough. The rationale together with its interpretation-free research findings (if any) which help policy makers arrive at the proposed policies should also be provided. Without these bases, public discussion will not be as fruitful as expected. In ideal cases, policy research results (if any) should not be treated as the only ground for policy decision making; they should be treated as a database for rational discourse in public inquiries. It is in this way the public can have access to all the related and unbiased information regarding the formulation of policy (Caplan, 1991; Knott & Wildavsky, 1991; Postlethwaite, 1991; Weiss, 1991a & 1991b).

Table 2: Frame Two

Analysis of the Formulation Process of Education Policy
<u>The Characteristics of Educational Policy Makers</u>
<ul style="list-style-type: none">● Legitimacy, representation of interest groups● Personal quality, expertise, etc.● Formation of policy making body and its composition
<u>The Characteristics of the Process</u>
<ul style="list-style-type: none">● Consultation● Participation● Open and free discourse● Consensus reached among various interest groups
<u>Perspectives and Technology Employed</u>
<ul style="list-style-type: none">● Ecological analysis - global consideration, interaction between moves● System analysis - objectives, structure, process and outputs of the system● Economic analysis - resources allocation, estimate of supply and demand, economic outcomes, cost-benefit analysis● Management analysis - management of planning, implementation and changes● Rationality building - research, experiment, pilot study, etc.● Decision technology - information procuring, processing, dissemination; decision tools, etc.
<u>Overall Quality of Resulting Educational Policy</u>
<ul style="list-style-type: none">● Suitability - suitable in terms of scope, timing, use of resources and benefits● Feasibility - feasible within known constraints; meeting essential requirements● Acceptability - accepted by majority of interests groups

This practice helps policy makers practically and ethically (Forester, 1985). In a practical sense, through communicating effectively with the public, the policy makers can reduce the unnecessary disruption in the planning process and gain supports for the resulting educational policy. Ethically, the policy makers will have provided chances for the public to voice their opinions concerning the educational policies which may have a far-reaching effect on them. Thus, the public will have at least participated through voicing out their views. This point is partially illustrated by the way the Education Commission of Hong Kong presents most of its educational policy reports with few interpretation-free research results provided.

Employing this focus to analyse the TOC policy, we would note that policy makers of both the TTRA and the TOC policy did not provide adequate raw data to initiate a meaningful discourse. Moreover, for the recent TOC Implementation Report (Advisory Committee on Implementation of TOC, 1994), the central Government adopted a limited consultation strategy. At the beginning of the consultation period, the report was distributed to school sponsoring bodies. Not all the frontline practitioners had a chance to read the report. This practice inevitably inhibited the participation of teachers and parents in the consultation process. Indeed, if more interpretation-free raw results of the researches were presented to the public without restriction, the quality of discussion in the consultation stage would be enhanced. This would provide more information for the policy makers in the policy development stage and thus the policies would attract less criticisms and gain upgraded practicability in

the implementation stage.

Apart from consultation, analysis may also be focused on how political bargaining and social consensus are sought in order to arrive at a finalised educational policy among members of the decision making body, which represents the interests of different stakeholders.

Perspectives and Technology Employed

The analysis of the process of formulating educational policy should involve whatever perspectives and technology which have been employed in the process. The following considerations are helpful:

Ecological Analysis:

Will the policy makers have a global and ecological consideration of the education system when the new policy is implemented? Will the changes invoke related changes in other parts of the system that might induce unexpected adverse effects? In view of these important questions, we need to study carefully the interactive effect between the proposed policy and the existing practices in the system. This includes also the analysis of the order of implementation as well as their possible effects. With this global ecological analysis (Cheng, 1985), we can then effectively assess the intended and hidden effects of the policy on the education system.

Consider this example. Something that policy makers might have overlooked in their consideration of the overall ecological interactions of the system is the Mixed Mode Schooling policy in Hong Kong (ECR4, 1990). Having seen the adverse effects of half-day schooling, the Education Commission of Hong Kong initially proposed, with goodwill under financial constraints, to benefit all primary level 5 and 6 students with whole-day schooling while the rest of the students in the junior levels remained unchanged. Yet, the policy makers might have under-estimated the interactions between their moves and the existing practices. Thus, huge criticisms were invoked from many school heads whose welfare was threatened when a large number of the existing headship posts were to be downgraded to deputy heads. This policy also attracted opposition from teachers and school administrators, who were greatly troubled by future possible administrative difficulties in the implementation of the policy. If more efforts were invested in exploring the possible interactions between the proposed policy and the existing practices, the Education Commission might have a better resolution in this connection. The recent introduction of the medium of instruction policy has also suffered from the lack of related ecological analysis.

System Analysis:

Another aspect of the analysis of educational policy is the type of changes that may be required in the input to, and the structure and process of, the education system when the policy is implemented. Failure to address to this will result in creating disequilibrium of the whole system and consequently adverse effects to our students. This may be illustrated by the adoption of the policy of reducing class size to 35 for improving education quality (Governor's Policy Address, 1992). After the announcement of this policy, the scheme of Non-graduate Teacher Assessment and lowering the entry qualifications of the four colleges of education were launched concurrently to "create" more teachers input to the system. Obviously, until more teachers can be "created", primary schools might have to face the problem of teacher shortage; consequently, more temporary supply teachers were employed in schools -- an upgrade or downgrade of education quality? This leads us to suspect that the policy might have under-estimated the extent of demand by teacher supply to the education system. If more thoughtful consideration of the input requirement had been made, the policy might have been more successful.

Looking back at the TOC policy, we note that if the newly proposed target related assessment system is effective in providing a clear picture of the true academic attainment level of students, a wide range of student attainment might be identified within one class. Yet, teachers may not have the necessary capability to handle this diversity of attainment level in class and provide remedial teaching or treatment to individual differences. The policy paper had not proposed ways to tackle this new problem. Seemingly, the policy makers had under-estimated the impact of this reality on normal classroom teaching. Consequently, this triggered quite a lot of criticisms from education circles. If a more thorough consideration of the process requirement had been made, the policy might not have

generated so much grievance among teachers.

Economic and Management Analyses:

Economic and management considerations are the other two very important aspects that need to be highlighted. In analysing the policy formulation process, we have to note the allocation of resources, the expected supply and demand of the human and other related resources required, and the cost effectiveness of the policy. On the practical side, we need also to note such actual management issues as the implementation plans, policy monitoring arrangement, policy publicity and promotion, as well as the possible actual management difficulties that might be encountered by schools.

To analyse the TOC policy in the above focus, we note that the original TTRA policy had proposed to introduce first the new framework at primary level four (the second key stage) and not the primary level one (the first key stage). This unnatural order was considered not educationally sound and had been criticised. Fortunately, the revised TOC policy rectified the implementation plan to begin at primary level one. However, anticipated management difficulties, such as increased workload, were not handled in the proposed implementation plan. This inevitably attracted resistance from school practitioners.

Rationality Building and Decision Technology:

The legitimacy of an educational policy is often based on its rationality. The analysis of an educational policy should have a focus on how policy makers build up the causal relationship between their proposed policy and the set objectives. In this case, we need to see if researches, experiments, and pilot studies have been carried out to support the validity, relevance, and suitability of the policy. In other words, knowledge provided by research is necessary for the rational development of educational policies (Cohen & Garet, 1991; Coleman, 1991). The use of research knowledge inevitably involves the effective application of decision technology and the process of information procuring, processing, and dissemination. Therefore, one focus of the analysis of the formulation process of educational policy will be on the rationality building and use of information. However, the use of scientific methods alone cannot establish the educational policy. The results of public consultation should also be considered by policy makers.

The TTRA policy in Hong Kong is a very good example to illustrate this point. In the first place, the rationality base of TTRA was weak since it was suspected to have no research support. This inference is drawn from the fact that if the Education Commission had previously conducted related scientific researches which confirmed the causal relationship between TTRA and positive learning outcomes, the results should have presented in ECR4 (1990) to support its recommendations. Second, the information and arguments presented in this report were not sufficient for a rational discussion among the public. Although the Education Department proposed an experimentation, this only outstands the fact that the policy needs scientific research support. Even the Advisory Committee on the Implementation of TOC (1994) admitted that there are uncertainties as to “whether it is applicable to all subjects ... how the framework and its principles can be realised in the classroom ... how TOC solves the problems encountered in primary education” (Advisory Committee on Implementation of TOC, 1994, p. 8). This explains why academics in the education circle had reservations to the implementation of the TOC policy.

Overall Quality of Resulting Educational Policy

Apart from the technical aspects, we need also to examine the quality of the resulting educational policy. As illustrated in Table 2, the major considerations are *Suitability*, *Feasibility*, and *Acceptability* of the policy. Suitability is examined in terms of the scope of the policy, the time frame of implementation, and the use of resources as well as the derived benefits. Feasibility is the policy's ability to take care of the known constraints in resources, time, knowledge, information as well as political limitations. Under these constraints, policy makers should be able to draw up the priority of implementation in order to meet the set objectives. Acceptability refers to the degree of acceptance by the public and other concerned.

Take the TOC policy once again as an example. Its formulation suffered from two shortcomings. Practically, the policy has not been field tested and rationally grounded. Thus, its suitability to bring

about the desired ends is doubtful. Since it had not invited a rational and democratic participation of the public in providing comments, its acceptability among professional and other members of the public is questionable. Noting that the policy requires the teaching force to be competent in criterion reference testing and in organising mastery learning activities and that almost 100% of teaching force in Hong Kong is not intensively trained in these two areas, it may be inferred that the policy is not feasible to be implemented in the given tight time frame. Ethically, if the decision of introducing TOC is later proved to be wrong, the policy makers will bear all the ethical responsibilities of the decision since the public have not been involved in the process of policy development.

To end the discussion of this frame, it is necessary to stress that if discrepancies exist in any one of the above outlined areas of analysis, such as the characteristics of policy makers, the decision making process, the perspectives and technology employed, and the overall quality of policy, the resulting policy may not be able to achieve its stated objectives.

Frame 3: Analysis of Policy Implementation (Gaps between Implementation & Planning)

Gaps between policy planning and implementation often exist, despite how well the educational policy is perceived by the policy makers at the planning stage. Thus, we need to have more in-depth inquiries to locate the discrepancies. The key areas are the preparation for implementation of educational policy and the level of change as shown in Table 3.

Table 3: Frame Three

Analysis of Policy Implementation (Gaps between Policy Implementation and Planning)
Preparation for Policy Implementation
Readiness of Concerned Parties (e.g. administrators, teachers, students and parents)
<ul style="list-style-type: none"> ● Cognitive Preparation - Understand the meaning and possible consequences of the policy ● Psychological Preparation - Are willing to support the policy & implement the policy ● Technological Preparation - Have adequate training and skills to implement the policy
Readiness of Resources
<ul style="list-style-type: none"> ● Human resources ● Facilities ● Accommodation/space ● Monetary resources ● Other related resources
Time Frame of Policy Implementation
<ul style="list-style-type: none"> ● Time availability ● Implementation stages ● Realistic Schedule
Legal Preparations
<ul style="list-style-type: none"> ● Legal rights of those concerned ● Legislation for the policy
Level of Planned Change by Educational Policy
System Level
<ul style="list-style-type: none"> ● Cost effectiveness--any biases to different parts of the education system?
Organisational Level
<ul style="list-style-type: none"> ● Changes in educational institutions/schools ● Cost effectiveness--any biases to various institutions/schools?
Classroom /Individual Level
<ul style="list-style-type: none"> ● Changes in classrooms or for individuals ● Cost effectiveness--any biases to various individuals / classrooms?
Congruence between Levels
<ul style="list-style-type: none"> ● Support from other levels ● Corresponding changes across levels

Preparation for Policy Implementation

Preparation for educational policy implementation can be analysed through different areas, namely, the readiness of concerned parties, the readiness of resources, the time frame of implementation, and the legal preparations.

Readiness of the Concerned Parties:

To have an educational policy implemented successfully and smoothly, education officers, school administrators, teachers, students, parents, and other related professionals should be prepared cognitively and psychologically and be ready technologically for the policy change and implementation (Cheng, 1992, 1996; Cheng & Ng, 1991; Cheng, Ng, & Tam, 1995). Cognitive readiness refers to the comprehension of policy objectives and the possible consequences when implementing the policy. Such cognitive readiness will initiate readiness at the psychological level which is the willingness to support and to be involved in the policy. Without cognitive and psychological readiness, teachers and related parties may not be willing to be actively involved in the implementation of educational policy. Forcing concerned parties to implement policies without readiness will result in passive compliance. Negative outcomes may be anticipated. Moreover, if the policy requires frontline educators to be competent in the exercise of certain skills or knowledge, such as criterion reference testing in the TOC framework, this readiness at cognitive and psychological levels is of utmost importance to induce technological readiness.

Examples are abundant. The School Management Initiative (SMI) policy in Hong Kong (Education and Manpower Branch and Education Department, 1991) introduced to schools some years ago is a good demonstration of preparedness at these levels. First, it launched a pilot scheme for schools which were willing to participate. Second, it conducted quite a number of briefing sessions and seminars to prepare schools cognitively. Moreover, reference materials of the project such as practical school plans and other related materials were on display for teachers at Education Department's resource centres. The last and the most important of all is that schools had their own choices to join the scheme when they were ready. On the other hand, the TTRA policy was one which might have overlooked the readiness of concerned parties. With regard to the modified TOC policy, considerations in preparing teachers affectively, cognitively, and technologically had been more thorough, though practitioners still urged for more intensive preparation. If the policy makers could invest more effort in facilitating the readiness of all parties concerned, including parents, the result of implementation might be more rewarding.

Readiness of Resources:

The often limited resources available for policy implementation constrain policy makers. If resource requirements and their use are not fully calculated, difficulties will be encountered at the implementation stage. Some important types of resources relevant to educational policy are human resources, equipment and facilities, accommodation or space, and monetary resources. They are all prime factors that contribute to successful implementation. Some educational policies may need a certain type of resources more than others. Policy implementation is therefore dependent on availability of resources.

One example is the policies of increasing the number of computers in secondary and primary schools in Hong Kong (Governor's Policy Address, 1993; SAR Chief Executive's Policy Address, 1997). Apparently, the required monetary resources and facilities are ready. However, we need also the readiness of accommodation at these schools to achieve the policy objective. Thus, during the formulation of these policies, the policy makers should be fully aware of the available space in the school computer rooms and ensure that the additional computer provision will not reduce adversely the space essential for normal learning.

Another example is the policy to establish a language fund to improve language proficiency in both Chinese and English of students in Hong Kong. The first stage of the policy is "to upgrade the skills of our language teachers" (para. 51 of Governor's Policy Address, 1993) by organising more new and intensive training courses for them. For this policy to be a success, teacher trainers and accommodation must be available. In view of the huge number of English and Chinese Language teachers, the requirements of teacher trainers and accommodation have realistically estimated so that

the training cycle will not be too long. It should be noted that the time frame of the training programs is also determined by the availability of these and other related resources.

For the TOC policy, the key resource is the availability of teachers competent in mastery learning and criterion-referenced assessment. Before the required population of competent teachers could be created, one of the ways to raise the resource level is to provide supporting services to the practitioners. On this point, the revised TOC policy has proposed to establish a data bank to disseminate effective practices among teachers and provide reference and supporting materials to help classroom teaching. This positive measure is crucial to the successful implementation of the policy.

Time Frame of Policy Implementation:

Regarding the time frame for policy implementation, we need to examine the time available, the stratification of implementation stages, and the feasibility of the schedule. The key is to have enough time for the parties concerned to be ready for the change. In Hong Kong, some education policies are implemented by stages and allow schools to have some choices of their own. Some examples are the policies of adopting Activity Approach in primary schools and implementing the School Management Initiative scheme. For the TOC policy, the original schedule of implementation was too hasty. The modified schedule improved a bit (Advisory Committee on Implementation of TOC, 1994) and was still very tight, in view of its broad coverage and great impact on students. Thus, it received criticisms from the public.

Legal Preparations:

Apart from the above aspects, the policy makers should also undertake to protect and respect the legal rights of all parties concerned in the implementation of educational policy and reforms. If the education policy formulated is outside the existing legal frames or lacks sufficient legal support from the existing education ordinances or regulations, the policy-makers should prepare the legislation for the implementation of the educational policy.

From the above, we can see that the readiness of concerned parties, the availability of resources and facilities, a realistic time frame of implementation, and the requisite legal preparations are important aspects for the analysis of implementation of education policy.

Levels of Planned Changes by Educational Policy

The analysis of the levels of changes as prescribed by an educational policy is also crucial. Generally, there are three levels. The first, being the education system level, concerns the changes to different parts of the education system (e.g. special education, primary education, secondary education, and high education) in the society. When examining these changes induced by the educational policy, we should be fully aware of the need for cost-effectiveness and balance in the allocation of the various social resources to parts of the education system (Cheng & Ng, 1993), and try to avoid any biases induced by the policy.

The next level of change is the organisational or institutional level. This level includes the changes, for example, in management practices, organizational structure, and physical conditions at the institution level.^[7] At this level, we focus our attention on cost effectiveness and a balanced allocation of resources among various schools or institutions within the same system.

The third level is the classroom/individual level at which the micro issues of classroom arrangements, teaching, learning, student counselling, and other student activities are affected. The policy arrangements and changes for various individuals or classrooms should not be biased without sufficient reasons.

The congruence of planned changes across these three levels is often necessary for effective policy implementation at each level. It means that the nature of policy changes at the organizational level should be consistent with that of changes at the system level if we want the change in educational institutions to support the reform in the education system level. Similarly, the nature of policy changes at the organizational level should be consistent with that of changes at the classroom/individual level (Cheng, 1994 & 1996). For example, the policy concerned with school management reform should

encourage democratic participation in school decision making if we want to effectively promote democratic education at the classroom level by education policy (Cheng, 1993). Therefore, the congruence of planned changes across levels is one important focus for analysis of educational policy.

Planned changes at lower levels without the corresponding changes and support at its upper level will often result in a failure of the policy. Thus, when analysing changes at the classroom/individual level, we have to analyse also the corresponding changes at the organisational level. The same applies to the other levels.

A vivid example is the previous medium of instruction policy launched by the Hong Kong Government (ECR1, 1984 to ECR4, 1990). Although all policy papers or reports were in favour of using Chinese as the medium of instruction, the change had not been successful ever since the Government endorsed the policy. The reason behind this is simple. First, the policy in itself aimed at inducing changes at the classroom-teaching level without taking care of corresponding changes at its higher levels. There were problems at the organisational level that prevented changes from taking effect at the teaching level. One of them was the quality of our teaching force in using English to teach English Language and in using Chinese (without mixed codes) to teach Chinese and other subjects. At the societal level, we see that the public still believes that English is a relative better language to master in terms of making a living in Hong Kong. Parents are biased and so are the employers. It is easy to see that the community is not yet ready for the changes envisaged. Based on the above reasoning, it seems that the failure of the medium of instruction policy is inescapable. The establishment of the language fund policy to upbring the language proficiency of our next generation attempts to solve part of the problem by preparing changes at the organisational level (i.e. to train up language teachers in both teaching and language proficiency). Despite the goodwill of the Government, we can expect many difficulties for the medium of instruction policy to be successful unless changes at the societal level are also ready.

Frame 4: Analysis of Educational Policy Effects

As shown in Figure 1, policy implementation will produce policy outcomes and educational outcomes. Frame 4 focuses on the analysis of the relationship between implementation and outcomes of education policy. Some policies may aim only at solving an administrative or political problem. In that case, educational outcomes so derived may be minimal or even negative. For example, half-day schooling was a temporary policy launched to solve the problem of insufficient school places in some thirty years ago in Hong Kong. Initially, this policy might not mainly aim at educational outcome; instead, it might aim at solving the Government's problem of insufficient school places.

Of course, some policies do have outcomes which would in turn generate educational outcomes. One such example is the School Management Initiative policy of Hong Kong (Education and Manpower Branch and Education Department, 1991) which aims to decentralise more power and devolve authority to schools so that they will be better managed and more accountable to society. When schools are better managed and held accountable to parents and the public, we can expect the outputs of schools to be enhanced -- a positive educational outcome.

Some policies, certainly, aim directly at educational outcomes. Examples in Hong Kong are the TOC policy, the doubling of the school computer number policy, and the upgrading of primary school teaching force to a 35% graduate team policy. The outcomes of the policies may not necessarily be educationally sound if the results of analysis in the last three frames are negative.

Certainly, with the policies implemented successfully, we can expect positive educational outcomes from the school system which thus improve the quality of education. More specifically, we can see policy outcomes at three different levels. At the first level, the students will benefit from the policies and develop well physically, academically, mentally, morally, and socially. At the next level, the school is also benefited. Teachers are more involved and dedicated to the education field. Schools gain their high prestige through outputting good students. At the higher level, with the success of school education, society will have good manpower support, technological development, economic development together with good and responsible citizens. These are the positive policy and educational

outcomes that might be derived from "good" and "successful" educational policies.

Apart from the expected outcomes, we also need to analyse policy impacts and the hidden effects, positive or negative, that might result from the policy implementation. These hidden effects should also be calculated at the various levels as discussed above. The awareness and calculation of hidden effects are very important to analyse the effectiveness and efficiency of educational policies.

When evaluating the effectiveness and efficiency of educational policy, we need to examine the implementation process, the consequences, and the payoffs. In the course of evaluation process, we need to calculate the possible losses and gains so derived in the process of policy implementation. The consequences are policy outcomes, educational outcomes, and hidden effects mentioned above. Payoffs are what are paid or lost in policy implementation. Educational policies may not always induce all the desirable policy outcomes or educational outcomes without any serious payoffs or adverse effects. Obviously, the level of payoffs affects directly the effectiveness and efficiency of the policy.

In evaluating an educational policy's effectiveness, its degree of achievement in bringing out positive policy effects or educational outcomes intended at the policy formulation stage should bear the highest weighting. Efficiency is weighed against gains and losses. Payoffs must not offset positive outcomes and should not generate serious adverse effects within the education system. Sometimes even the degree of achievement of policy objectives is high, the policy may still be inefficient when the payoffs are too high. Thus, the cost-effectiveness of educational policy should be seriously attended to in the analysis of education policy (Cheng & Ng, 1993).

CONCLUSION

As a result of the rapid development of Hong Kong society, a series of educational policies have been developed in recent years. Even though the discourse and development of educational policies are currently so strongly emphasized by scholars, the education profession, the public, and the Government, they are suffering from the lack of a powerful framework that can facilitate analysis and development of policies in the field of education. It is not surprising that the discourses and debates on educational policies are often superficial and fragmentary and that the educational policies developed with good intentions often raise serious criticisms and resistance. This drawback in policy analysis sets a tight limitation to the development of education in Hong Kong.

Responding to this issue, the four frames presented in this paper provides a comprehensive framework specifically for educators, researchers, policy makers, and interested parties in the education field to analyse educational policies. Complementary to the general frameworks of policy analysis, this framework includes the crucial and unique components of educational policy and proposes a wide range of considerations in a systematic way specifically for policy analysis and development in education. It serves to assist researchers, policy makers and practitioners to analyse the problems in the background, the principles underlying the policy objective setting, the policy formulation process, the implementation process, the gaps between implementation and planning, and the policy effects and impacts. If it is employed effectively, high quality policy analysis and development may be facilitated, and meaningful and rational policy discourse may also be expected.

It is hoped that the framework can contribute to the research and development of educational policy not only in Hong Kong but also in other developing areas in an international context.

Endnotes

- [1] This manuscript is based on the authors' previous paper, "A framework for the analysis of educational policies", published in *the International Journal of Educational Management*, 9(6), 10-21, 1995. The original paper is awarded *Highly Commended Paper* in the competition of UK Literati Club's Outstanding Paper Awards 1996. The authors would like to thank the Editor (or Editorial Board) of the *International Journal of Educational Management* for granting the permission to reproduce the paper for adaptation.

- [2] It should be noted that the framework presented here is conceptually structured as a unidirectional process characterized by the stages of problem identification, policy formulation, implementation, and evaluation for the purpose of facilitating readers' policy analysis pursuit. It goes without saying that, firstly, the policymaking is by nature a dynamic process through which decisions made and actions taken at a particular stage will inevitably affect not only the activities in the subsequent stage but also those in the preceding stage as well, and secondly, from such a dynamic perspective, the policy process is cyclical, rather than unidirectional.
- [3] The Target Oriented Curriculum (TOC) policy is modified from the Target Target Related Assessment (TTRA) policy tabled in 1990 in ECR4. The TTRA policy objectives were as follows: “ (a) provide to students and teachers the information they require for formative purposes; (b) provide employers and parents with a clear statement of students' achievement; and (c) enable the Government, in consultation with the community, to set and monitor educational standards” (ECR4, Section 5.5.1). The features of this TTRA policy included (1) teachers taught learning targets which set out a common direction for children's learning and target-related assessment, (2) the TTRA framework was designed to develop students' capability to think, to develop knowledge, to learn how to learn, to solve problems and to communicate effectively, (3) based on the existing curriculum, learning objective and programme of study would be developed by the Education Department for use by schools, (4) assessments, either internal or external, would be based on learning targets and criterion-referencing principles, (5) there were four key stages throughout the 11 years of primary and secondary education - they were Key stage 1 at P.1 to P.3; Key stage 2 at P.4 to P.6; Key stage 3 at S.1 to S.3; and Key stage 4 at S.4 to S.5, (6) in order to describe students' progress in performance through the four key stages, 8 progressive bands of performance would be used: it was expected that students in the same key stage might be at different performance band; there might be an overlap of 2 bands for each consecutive key stage; and the bands of performance would be used to describe students' achievement in both internal and external assessment. In September 1992, 20 primary schools participated in the pilot scheme of TTRA for one year. The general response was in support of the spirit and intent of TTRA. However, there were concerns that the implementation schedule was too hasty, the curriculum framework and means of assessment were too complex, resources were inadequate, teachers needed to be better prepared, and that parents and the public needed to be better informed. Subsequently, an advisory committee was formed to review the implementation of the policy in 1993. In July 1993, the name of TTRA was replaced by TOC (Target Orient Curriculum) to reflect the spirit and nature of the curriculum. The report of the Advisory Committee on the Implementation of TOC was tabled in June 1994 for public consultation. In response to the previous criticisms, the report provided a simplified theoretical framework of TOC and detailed plans for teacher training, resource support arrangement, TOC assessment, publicity and public education and implementation plan.
- [4] According to the first frame, the different sources of problems should be identified. Based on the above examination of the different sources, we would have a wider perspective to identify and analyze real problems prior to the formulation of the TOC policy. It should be noted that the problems identified by the policy-makers so far were related essentially to the assessment system. As the public had then critically disapproved the assessment orientation of the policy, the original policy has been eventually modified to have a balanced emphasis in both curriculum delivery and assessment practice. Nevertheless, the published TOC policy paper has not identified the problem areas in the present mode of primary and secondary school curriculum delivery but rather has related all problems only to the assessment system (Advisory Committee on Implementation of TOC, 1994). This is not sufficient to justify the modified policy (TOC) which focuses on curriculum delivery and assessment system. It seems there is a need to justify the existence of significant problems in curriculum delivery prior to the actual formulation of the set objectives of TOC. For details of the TOC policy, see endnote 3.
- [5] For details and examples, please see ECR2 (1986) and ECR4 (1990).
- [6] For detailed discussion of the functions of education, please see Blackledge and Hunt (1985) and Cheng (1995).

- [7] For details of the example on the improvement of school environment, see the policy proposed by the Governor in his Policy Address, 1993.

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