

# **A Relations' Approach to Relevance in curriculum Development in Vocational Education and Training**

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## **Abstract**

**This paper examines the problem of 'relevance' of training curriculum to solve performance problems in organisations. I first review a new model for curriculum development in corporate education and training to validate its usefulness to enhance relevance in curriculum development in VET generally and in corporate education and training particularly. Finally the new model is placed within a Human Resource Development (HRD) policy framework. The paper offers a useful theory to policy makers to use training more effectively and it provides a useful model for curriculum development to training providers to enhance the impact of training programmes on human performance in organisations.**

## **An Introduction**

I have long practical experience as a curriculum development specialist in vocational education and training in offering vocational education and training to enhance human performance in public and private organisations in several countries. Most of the literature on training curriculum development models is based on the Tyler 1949 model and its variations often known as objectives models. These models focus mainly on systems based on rational thinking in performing human tasks efficiently through the application of ideas borrowed from technology. They are silent on the human relations and contextual influences on human performance. I also used and taught these models taking human relations and contextual influences for granted.

I discovered the Kessels and Plomp (K&P 1999) model for curriculum development for training to enhance performance in organisations during my Doctorate (EdD) studies at the university of Bath. The K& P (1999) model for curriculum development is based on research on existing practices in Netherlands. It integrates the traditional models based on rational thinking, the influences of human relations and the contextual policy required to enhance human performance within organisations under one conceptual model. The authors have called this model 'Relations Approach to Curriculum Development'.

I decided to explore this model further in the light of my personal experience to fully understand this model to use it in my future work as a consultant. In this paper I present my practical knowledge derived from the K& P theory (the authors called it a theory)

and my past experience interface. I first place the K& P 199 model in the historical context searching for relevance of curriculum in vocational education and training to meet client needs to enhance human performance before examining this model fully to understand its strengths and weaknesses and to add my contribution to make good some of its deficiencies. Finally I add my HRD model to place the K and P 1999 model in a suitable Human Resource Development (HRD) policy. So the paper is divided into four sections as follows:

1. The historical context of the need to enhance relevance in curriculum development.
2. Review of the Kessels / Plomp (1999) theory/ model and my HRD model to place training within several interacting systems required for enhancing human performance.
3. Examining K&P (1999) model in the light of my past curriculum development projects.
4. The future trends in curriculum development.

I believe that this paper now offers a useful theory to practice training as a useful tool to improve human performances in organisations in top-down strategies used for staff development often with the aid of consultants like myself. It offers a useful model for policy makers to understand training within a useful HRD framework. It also shows how better knowledge can be created from a theory/practice interface.

## **Section one**

### **The Historical Context of Relevance in Curriculum Development in VET**

#### **Understanding Curriculum Development As a Field of Study**

The field of curriculum development has changed considerably over my professional life spanning over forty years. Generally focus on curriculum as a phenomenon of schooling has shifted to curriculum as a more pervasive social and cultural phenomenon. Curriculum, as a field of study understood in the past seems to be in disarray. Sears and Marshall (2000) expressed their concern as follows:

**We are perplexed about our ‘property rights’ particularly those boundaries having to do with membership, language, history and audience. Articulating our ‘base’ may be the most**

**important curriculum project of the next generation and may come to define the first curriculum renaissance of the new millennium (P. 211).**

While academics in curriculum development field are engaged in reconceptualising curriculum as a specific field of study, practitioners in curriculum development, particularly in vocational education and training, are faced with the problem of enhancing relevance of curriculum to meet stakeholder needs. I avoid the present debate amongst academics on liberal education (education without instrumentality) versus vocational education (instrumental in goals) Ross, (2000). According to my practical experience the liberal education can be vocationalised and vocational education can be liberalised as shown in the TVEI (See Pring, 1997). Curriculum development from the teacher/ trainer perspective is essentially a practical activity used to solve student performance problems (Eisner 2000) in classrooms and/or on-the-job.

**Curriculum development and teaching are fundamentally practical activities. Their aim is not primarily to produce knowledge, but to get something done. Getting something done is a practical activity that requires an extraordinary sensitivity to context, that is predicated on individual's ability to weigh alternative courses of action, to deal with inevitable trade offs and, the expectation that each situation will be significantly unique. (Eisner 2000,p. 354).**

In my view Stenhouse (1975) is a useful integrated guide to conceptualise relevance in curriculum development in vocational education and training. According to Stenhouse (1975), *“a curriculum is an attempt to communicate the essential principles of an educational proposal in such a form that it is open to critical scrutiny and capable of effective translation into practice”* (p.4). He makes a distinction between the planned curriculum and the implemented curriculum. For him the problem of curriculum development is to close the gap between the planned and the operational curriculum through research and development. In the light of the above conception of curriculum development I understand the general problem of relevance in VET is to match the performance needs of the employers and the students to the planned curriculum to be matched to the implemented/ operational curriculum as illustrated below.

Operational curriculum

Planned curriculum

NeeN

Needs

**Figure 1: THE CURRICULUM DEVELOPMENT PROBLEM (Punia 1992).**

As illustrated above the problem of curriculum development is to create harmony in the three aspects of curriculum development (Punia 1992). This model has emerged after a

long practical experience in the profession. The validating bodies are now aware of the need for relevance of training programmes to meet stakeholder needs (Pring 1997) and the importance of monitoring the gap between the planned curriculum and the operational curriculum (Stenhouse 1975; Goodlad, 1979; Sieburth 1992; Punia 1992). It has been a difficult task to achieve a complete congruence amongst the three circles.

In the past curriculum planners as academics from universities attempted to improve the quality of education by providing better quality planned curriculum without due regard to context and teacher competence. Later understanding of implementation problems led to school-based curriculum by the teachers. At present the pendulum has swung to industry controlled competency-based training model controlled by the employers.

### **Past Forays of Curriculum Development in vocational education in the FE/HE Sector**

First it is useful to understand the difference between vocational education and vocational training. Both have different goals and different methods of education and training. Generally curriculum development in vocational education and training is instrumental in preparing students to meet industrial needs. Sometimes I found that it was done at the expense of student needs. Vocational education has broad aims with emphasis on practical knowledge derived from practice while training claims to improve individual and team performance within organisations. For example, in the UK GNVQ programmes located in schools are educational while NVQ programmes within industrial organisations are oriented towards training. This paper deals both with vocational education and vocational training.

During the last thirty years the quality of curriculum development in (VET) has changed significantly. The planned Curriculum in vocational education and training during the early sixties and late fifties was mainly subject-based. It was concerned with the programme content, occasionally with sample examination questions and subject aims. In this model teachers with sound industrial experience were deemed to assure relevance. However, policy-makers soon learnt that the industrial experience of full-time teachers did not last long in rapidly changing contexts.

To improve this situation the Technician Education Council (TEC) introduced the use of the Tyler model (1949) in its technician programmes in mid seventies. In this model the planned curriculum included the specification of aims and objectives, teaching-learning method and an assessment strategy as an integrated system. This strategy failed to produce the anticipated results. Often the planned objectives in the planned curriculum did not come from the careful analysis of industrial needs and teachers did not think of

teaching in terms of student learning objectives.

The latest effort to achieve relevance in VET is through the use of competency-based VET. In this approach educational/training needs are expressed in terms of competencies needed in various sectors of the economy in the UK and performance assessment is directly related to the competencies. The curriculum development as a learning experience is left to the providers of VET and/ or the learners. This model has its own problems. Firstly, the competencies do not meet the needs of all employers. Secondly, there is no generally accepted definition of the term competency. For instance, some people derive competencies from present needs while others argue for future needs (Mansfield and Mitchell 1996). Matlay (2000) provides the recent state of this model in the UK. According to him after 12 years of the application of this approach only 25% of the large employers in the UK have implemented this strategy to solve the problem of relevance in VET.

Initially validating bodies such as RSA and BTEC began with control over the planned curriculum now they have begun to control the quality of the curriculum development in technical and vocational education including planning, implementing and evaluation as an integrated system. They have also introduced mechanisms for quality assurance in the planned curriculum. According to (Nasta 1994, p.28) today the national validating bodies in the UK demand answers to the following questions.

- 1. Why is the course/ programme needed?**
- 2. What does it contain: its aims and objectives?**
- 3. What teaching and learning methods will be used?**
- 4. How will it be assessed and certified?**
- 5. How will it be managed?**
- 6. What quality assurance system exists?**
- 7. What human and physical resources are available?**

The lecturers in the colleges of FE/HE are allowed to plan curriculum but the awarding bodies ensure that a training programme is designed to meet specific needs and that the training providers are suitably resourced to implement the programme. The awarding bodies also began to monitor implementation of their training programmes.

The BTEC has created a new model for its relationship with its training centres. Recently Business and Technology Council (BTEC, 1992) introduced a system of centre approval as a prior condition for delivery of occupationally specific national vocational awards.

However, when centres have rigorous internal approval mechanisms for their courses, many validating bodies delegate a substantial responsibility for validation to these centres. The above account is useful to understand the evolution of curriculum development practised today and it provides useful material for those engaged in curriculum development.

### **The problem of determining training needs**

The concept of ‘**Training Needs**’ is often poorly understood. Sometimes present needs are confused with those of the future, sometimes needs are confused with wants. Frequently stakeholders are not aware of their training needs, always in flux. Furthermore, different stakeholders have different perceptions of their needs. Frequently the needs of one group of stakeholders override the needs of other groups. For example, the planned curriculum in VET generally emphasises the performance needs of the employers at the expense of the educational needs of the students and teachers. It means that, to pursue relevance, curriculum planners have to be sensitive to the needs of all stakeholders including teachers and students. Different techniques such as job-analysis, functional analysis, Dacum and Skills-analysis (Mansfield and Mitchell, 1996) have been used to determine training needs. According to my practical experience ‘Training Needs Analysis’ is more of an attitude of mind than a particular technique because it is extremely difficult to resolve the training needs of different stakeholders in a changing contexts. Training needs can be conceptualised at various levels and often there is inconsistency in various levels.

For instance, at a Macro level governments are engaged in making their education systems relevant to the needs of their economies. Ball (1999) cogently explains the mismatch between the needs of the British economy for ‘high skills’ in the current educational policy of the British government. As an academic he emphasises the need for knowledge in the knowledge-based economy of the UK. He states:

**Rather than raising standards in any real sense and rather than producing skills and attributes relevant to knowledge-based economy, the over-determined new labour classroom may well produce a generation of young people marred by what Hugh Lauder calls trained incapacity (Ball 1999, p. 202).**

As a teacher trainer I found that at the micro level teachers find it difficult to match their lesson plans to the needs of their students. Often teachers’ preactive plans and interactive teaching (Jackson 1963) do not match. I studied the lesson planning practices of a group of senior lecturers from a technical institute in the South Pacific (Punia 1992). Out of (15) of these teachers (8) reported success in matching their preactive plans with their

interactive teaching; (5) reported partial successes and (2) reported complete failures.

Pursuit of relevance is a continuous pursuit in hierarchical organisational structures. Professionals have to have judicious blend between all kinds of knowledge, skills and attitudes in various contexts. It requires professional judgement.

In my view derived from practice shifts in focus are not likely to solve the problem of relevance in curriculum development. What is required is a common perception of needs amongst key stakeholders, their direct involvement in curriculum development within a carefully prepared Human Resource Development (HRD) policy.

According to Psacharopoulos (1997) generally traditional approaches to VET have failed to solve the desired problems of the policy-makers and he makes some useful suggestions for the future. According to him VET should be kept out of formal schooling and it should be provided in specialised institutions or on-the-job. Moreover, it is best provided and paid by the employers and the employees. Cost of VET is high: *“typically VET costs about twice (per student place) as much as general education graduates, as several evaluations have shown”* (p. 402).

As for training within industry, Kessels and Harrison (1998) quote Crandel (1991) who estimated that only 10% of training expenditure within industry resulted in observable behaviour changes. These disappointing results of planned VET indicate need for research to make it more effective. To derive the full potential of VET a sound theoretical base grounded in empirical research has been lacking. The next section presents a theory grounded in practice to make education/ training more relevant to solve performance problems of individuals and organisations with aid from curriculum specialists. It is to be appreciated that essentially it provides a management perspective to use training more effectively to solve organisational problems.

## Section Two

### ( K & P 1999 Model) Reviewed

The industrial education and training is designed to provide intentionally designed learning situations aimed at changing both the individual behaviour and the organisation culture. The curriculum development includes planning, implementation and evaluation of training programmes as an interrelated system collaboratively. It is important for curriculum developers and training providers to know that unlike the institution-based VET, industrial education and training does not stop with the achievement of planned learning objectives. Industrial training aims to solving performance problems of organisations. Kessels & Plomp (1999) have integrated the traditional **systematic approach with a human relational approach** in corporate education and training to enhance impact on individual and team performance as a result of a four-year study (1989-1993) in Netherlands.

#### The Research & Development in the K&P (1999) Model

The aim of the exploratory research was to explore **the factors influencing quality of outcomes** in industrial training. Nine successful and nine unsuccessful cases were selected and studied for this purpose. The data came mainly from documentary evidence and interviews with the practitioners. Independent assessors categorised and graded the data on a five-point scale. In most cases they found that documentation on design and development was poor. Almost all cases used elaborate training material. They also found that when an organisation employed an instructional developer, the quality of the curriculum was high. In general cost-benefit analysis received little or no attention.

In unsuccessful cases, internal consistency in curriculum components such as objectives, content, training methodology and evaluation in the planned and the implemented curriculum and external consistency in training needs amongst stakeholders was poor. Factors influencing successful cases included management involvement in training, use of authentic learning situations in curriculum development, trainer experience and favourable circumstances for the implementation of the training effects.

On the basis of these findings the authors produced **the blueprint for design standards** (see appendix one). I do not find the appendix very helpful for practitioners. According my professional judgement unlike the normal design standards in the literature on Educational Technology (Punia 1978, Rowntree 1974), the significant feature of their model is that it integrates traditional curriculum development models based on educational technology, with consistency in stakeholder perception of training needs under the leadership of a professional project director in supporting organisations.



K&P hypothesised: “**skilful application of the design standards, based on both a systematic and a relational approach will generate educational programmes that accomplish significantly better results than those associated with the unsuccessful programmes in the exploratory study**” (p. 698).

To test their hypothesis in practice they trained (30) programme developers in implementing their new design standards. Data came mainly from 14 organisations collected through documentary evidence and a questionnaire distributed to the stakeholders and it was analysed for the appraisal of the curriculum design, assessment of effects and assessment of external consistency. The results of the confirmatory research confirmed the hypothesis. The authors added:

**An organisation will benefit most from the relational approach when the educational policy at the managerial level advocates corporate curriculum design that integrates the systematic and relational approaches. The quality in corporation education is not solely dependent on skilful application of relational approaches of the developer, but on organisational climate, which an integrated educational strategy can flourish (P.703).**

They have added need for a suitable policy in organisations. They do not explain what do they mean by a suitable environment. Later in this paper I add my model for appropriate HRD policies in organisations.

### **The Emergent Conceptual Framework in Detail**

The authors defined **curriculum** as a course of action open to an organisation for influencing the employees’ performance and the work environment through planned learning activities and learning processes. The **quality** of a corporate curriculum is defined as the degree to which such a curriculum meets the expectations of all relevant stakeholders including managers, curriculum planner, trainers and students. According to my professional judgement it means that the planned curriculum, the operational curriculum and needs have a good fit (Stenhouse 1975, Goodlad 1979, Punia 1992). They mention two kinds of consistency: **external consistency** refers to the congruence in training needs amongst stakeholders and **internal consistency** refers to the logical consistency between various elements of the planned curriculum. To put it differently, Internal consistency refers to ‘systems thinking’ in curriculum development whereas external consistency to factors requiring ‘social integration’ of stakeholders. According to Kessels & Plomp 1999:

**“ It is hypothesised that the integration of a systematic and a relational approach in design standards is responsible for curriculum consistency and subsequently for high**

**quality corporate education.**” (P.684). The emergent model is illustrated next.

## **Systematic Approach**

## **Relations Approach**

**Internal consistency**

**External consistency**

**Effect**

### **K&P 1999 CURRICULUM DEVELOPMENT MODEL**

There is no need to provide details of **a systematic approach** to curriculum development here. It is similar to many approaches available in the literature on curriculum and instruction development (Bass and Dills 1984; Buckley and Caple, 1995; Brooks, 1995). For instance there has to be consistency in objectives, teaching methodology and assessment methodology. Similarly there has to be consistency in the planned, implemented and evaluated curriculum. Consistency is the key word here. The **relational dimension** is new to the traditional models focused on improving the task. It includes stakeholder active involvement, particularly management involvement in all the stages of the development of a systematic approach to curriculum development. Contextual factors include management acceptance and trust in the ability of the developer. Finally they mention the image of training function and its position in an organisation's as the foremost condition that determines the opportunities for the successful use of the relational approach in a project.

#### **A Critical Appraisal of the Kessels & Plomp (1999) Theory**

In my view this study makes an important professional contribution towards the literature on training technology by adding and highlighting the importance of the **relational aspect** of curriculum development frequently ignored in traditional development curriculum development models. Most of the traditional literature in this area is propositional with emphasis on system design. A typical example of such a model for

curriculum and instruction planning is the famous Tyler model (1949), which ignores the quality of teachers, students and the context in the system. To derive better results K&P (1999) model/theory blends the systematic thinking with relational aspects and a suitable context in curriculum development.

The K&P theory is consistent with literature elsewhere (see Sarason 1990 & Punia 1992,). Sarason 1990 identifies two factors for the failure of past efforts to improve the quality of education. First, the different components of the educational reforms have neither been conceptualised nor addressed as a whole. Secondly, the power relations amongst various stakeholders have not been resolved. I recently used this model intuitively in a recent successful project as a training technology specialist in management training in Mauritius. K& P (1999) has made my implicit knowledge of curriculum development using this approach explicit. However, I still anticipate several problems in using this model for general use.

**Firstly**, many industrial concerns are not clear of their training needs. Wellington (1994) examined the extent to which post-16 curriculum can be determined by the needs of the employers and concluded: “ *the notion of the needs of industry or of employers generally, does not provide a solid base on which a coherent plan for education and training can be built.* ”(p. 320).

**Secondly**, my experience has shown that it is difficult to get consensus on performance problems and their solutions amongst stakeholders. It is due to the fact that people tend to possess partial view of the holistic problem. It is usually more practical to consult key stakeholders and/or to trust the vision of an experienced programme developer with ability to communicate his vision to stakeholders successfully.

**Thirdly**, some employers fail to appreciate that training alone will not solve their performance problems. For example, small and medium-sized businesses lacking training facilities and experience often rely on consultants to provide training to solve their performance problems for them without direct involvement in solving the problem. In such cases providers determine training needs and appropriate training programmes to suit perceived needs, often leaving implementation of training effects to solve performance problems to the client. Training fails to provide anticipated effects on performance in such partial schemes. Such practices have discredited training as a useful tool available to effect performance in industry.

**Fourthly**, the programme developers tend to have individual styles. Some tend to

emphasise the system, others emphasise human relations and so on. The Kessels & Plomp 1999 theory demands competence in technical knowledge, human relations and professional judgement to assess its use in a given context. Such expertise is rare to find amongst programme developers.

**Lastly**, Kessel & Plomp (1999) reported little use of cost-benefit analysis of training in all the training programmes in their research. Industrial/ commercial organisations exist mainly for making profits. Without solving the cost-benefit problem VET will not achieve its full potential as a viable strategy to improve performance. Kessel & Harrison (1998) used the Kessel & Plomp (1999) framework to evaluate and compare a three-year (1991-1994) Management development programme in the National Health Sector (NHS) in the UK. The top management found this programme was effective but very expensive.

However, it might be problematic to operationalise this theory in all industrial organisations. There is a lack of training culture in many organisations. To alleviate this problem currently the UK government is promoting such a culture through '**Investing in People Scheme**' (Nasta, 1994). This is particularly true of the developing countries.

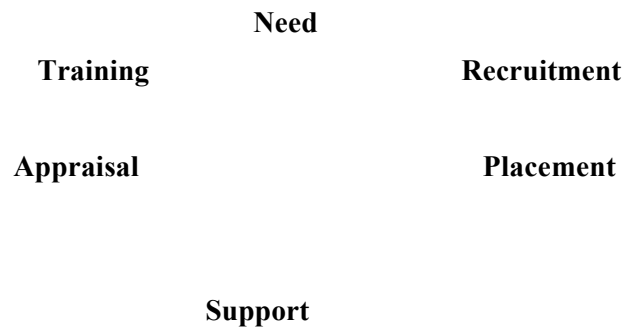
According to my professional judgement the successful application of the K&P 1999 theory requires trained and experienced programme developers with expertise in all aspects of the K&P 199 theory. Kessels & Plomp (1999) report a training programme for these people. I find the content of their training programme inadequate for the preparation of these people. In my view Fullan (1993) offers a better framework to develop such people. He proposed four core capacities: a personal vision, inquiry skills for learning, technical expertise to get work done and the ability to establish a collaborative culture within teams.

Kessels & Plomp (1999) present a useful theory to enhance the quality of VET but it is important to be aware of its limitations. No single theory will be adequate to improve the quality of industrial training fully. The effects of training on performance can be enhanced considerably when training becomes an aspect of several other initiatives in an integrated policy for HRD in organisations.

### **Placing Training within HRD Policy**

According to my experience, education and training in traditional organisations will not solve performance problems effectively and efficiently unless it becomes an integral part of a sound Human Resource Development (HRD) policy. I developed the following model from many years of experience as a programme developer to solve organisational

performance problems. I integrated the various components of the following model when I observed that they the practitioners failed to appreciate the interrelationship amongst them. This model includes determination of staff performance needs, recruitment of the right staff, placement in correct roles, on-the-job support, a sound performance appraisal system and training by experienced trainers as interrelated processes as illustrated below.



### **THE HRD MODEL (Punia 1992)**

When there is consistency amongst the various components they produce the desired effects. Unfortunately few organisations have been found to use such an integrated system. The key is consistency in the various components. I believe this model will enhance the effectiveness of the K&P 1999 model even further. I now present two case studies from personal experience to validate the Kessels & Plomp theory (1999). In the first case study, a highly systematic training programme led by an experienced consultant offered to vocational teachers and trainers fails to achieve its full potential due to lack of a supportive environmental policy for HRD to curriculum development provided an experienced consultant. In the second case of developing an institute-based curriculum development model the systematic approach integrated with the relations aspects of the Kessels & Plomp (1999) theory in an appropriate HRD environment produced the desired organisational change. I have provided adequate details of the two cases to encourage practitioners in similar cases to make a full use of the K&P 1999 theory and to extend the use of their theory beyond industrial training into institutional vocational education and training.

### **Section Three**

### **Validation of the K & P (1999) model in Two Case Studies**

#### **Case one:**

## **A Trainers' Certificate in Vocational Training (TCVT) in the Industrial and Vocational Training Board (IVTB) in Mauritius**

This section presents complex processes involved in mounting a purpose-made training programme for vocational teachers and trainers in Mauritius. As a consultant I sensitively blended the recent thinking on teacher training (Young, 1998; Dillon and Moreland, 1996), designed the programme and implemented the programme with one cohort of trainers. Myself as the programme director, trainees and two trainers found the programme highly successful in meeting trainees' training needs (see appendix for trainee responses). However, top management including the director of the organisation and the divisional manager responsible for the programme failed to be actively involved in the programme because of a politically unstable environment in IVTB without a clear Human Resource Development policy at that time. It was disappointing for me and other programme participants to find that the top management failed to learn and celebrate the success of the training programme. In hierarchical organisation structures such training programmes have little effect on trainee performance in classrooms to effect student learning. I believe that the judicious use of the K&P 1999 model in this context would have produced the desired effects to the satisfaction of stakeholders. I have provided sufficient detail in the following narrative so that the reader and the prospective users of this programme may use the successes of the programme and avoid the shortcomings.

### **The Origin of the Certificate in Training for Vocational Trainers (TCVT) Programme**

I arrived in IVTB in November (1992). The IVTB was a new organisation opening new training centres with several training programmes in each centre. Most of the trainers in the centres were young with minimum technical qualifications, industrial experience and no professional training as trainers. At the time, IVTB was introducing several innovations such as the National Trade Certificate (NTC) system, the competency-based modular training programmes, distance training and trade testing. With the existing trainers it was impossible to implement these innovations. To overcome this difficulty I introduced a series of modular training programmes, usually of 1-2 week duration, on specific aspects of trainers' work. These programmes proved useful to facilitate the implementation of innovations.

Staff training and was not the priority in the top management policy at that time because they were busy in establishing as many training centres and courses as possible to cope with industrial needs for more trained people. However, the successes of these training programmes brought about a change in the thinking of the then director of IVTB who did not believe in trainer training. This change in director's attitude provided the initial

stimulus for me to offer (TCVT) at IVTB. If this programme was successful, the director hoped to make this qualification compulsory for all registered trainers in Mauritius in future. I learnt that there seems to be an interesting paradox about the need for teacher/trainer training. Untrained in-service teachers and administrators remain unaware of the need to train until they attend a relevant training programme. After attending a successful training programme they ask for more training.

### **The Design Context**

The IVTB had no adequate organisation structure and persons with previous experience of training of trainers. However, I had a long successful experience in planning, implementing and evaluating similar teacher training programs in several other countries including Fiji, Western Samoa and Hong Kong in highly supportive contexts. I designed a suitable training programme to meet the needs of the local trainers. The design passed through several complex processes, organisations and individuals, who often acted to protect their interests rather than to make any constructive suggestions to improve the training programme design. This was to be expected from those who knew little about trainer training where there was no HRD policy in a new organisation. This experience taught much about the political aspects involved in training.

I prepared a project proposal, for approval by the stakeholders. After approval I prepared the detailed curriculum involving the curriculum specifications for each module and a detailed assessment plan for the programme. As IVTB had no organisation structure to offer trainer training, I suggested a suitable social structure to offer trainer training in Mauritius. It involved myself as the trainer, the Mauritius Examinations Syndicate (MES) to control the assessment process but without previous experience of examining teacher training and a University of Bath in the UK to assure quality in the training programme. The MES and the IVTB agreed to make a joint award. It was indeed a strange mixture of various conflicting interests. The reader will find later that structure failed to work as anticipated.

### **Design Principles**

In-service graduate and non-graduate trainers from IVTB training centres and other centres registered with IVTB were the trainees. The following processes guided the programme design.

- 1) The programme aimed to provide knowledge, skills and attitudes necessary to implement the planned IVTB curriculum into an operational one. It means that trainer training was an integral part of curriculum development.

2) 1/3 of the total time was to be spent on direct training within IVTB and 2/3 of the time to be devoted to on-the-job support to implement and test the knowledge, skills and attitude acquired from the taught part of the programme. Formal training consisted of one day per week for one academic year with additional three one-week blocks offered during normal term breaks.

3) The centre managers were directly involved in providing on-the-job support to trainers.

4) I had to supervise and train the other resource persons involved in training the trainers.

4) The programme content included concepts, techniques, application and transfer (see appendix 1).

5) I prepared the teaching-learning materials and conducted a series of formative and summative evaluations of each module to learn from the whole experience.

In short I had worked within several constraints. A few people believed in training the trainers and there was no clear policy, resources and infrastructure to offer trainer training. Furthermore, there was a shortage of trainers in training centres, making it impossible to offer a full-time training programme. I was the only person experienced and qualified in trainer training. I had to teach the substantial part of the programme, train local resource persons and a local future programme co-ordinator. In fact I had to produce all the resources required to operationalise the planned curriculum. In the hind sight I have learnt not to own and contextualise a project without the full involvement of those responsible for its use.

### **The Design Content**

The design format included the rationale, the programme aims, the general goals and the specific learning objectives. Content included ten taught modules classified into three categories: foundation modules, core modules and two integrating modules. **The three foundation** modules included (1) an Induction Module, (2) Vocational Education and Training in Mauritius and (3) Theory of Vocational Education and Training. These modules prepared trainees for **the five core modules** including (1) Programme Design, (2) Instructional Planning (3) Instructional Techniques and Media (4) Microteaching and (5) Student Performance assessment. Two modules including (1) production of a learning guide and (2) clinical supervision/ supervised work experience integrated the whole



learning experience. The project work and supervised work experience (SWE)/ integrated theory with practice and all the taught modules. The production of a 'Learning Guide' involved the production of a 'self-learning guide' for any one competency of trainee's own choice. The output of the design activity included a programme proposal, detailed curriculum for each module and a comprehensive assessment specification, handouts, textbooks and videos, later displayed to the public in an end of programme gathering.

### **The Implementation Strategy**

The planned **teaching-learning strategy** included use of formal lessons supported by appropriate handouts and textbooks, group work and Individual assignments. The assessment strategy was based on continuous assessment involving techniques such as essays, tests, projects, and assessment of classroom teaching. The assessment strategy was fully detailed in a document agreed by the MES as the examiner, IVTB as the training provider and the University of Bath as the moderator. Myself as the programme director was present in each session to teach a large part of the content, and to make up the deficiencies of inexperienced resource persons.

### **Reflections on the Whole Experience**

The strengths of the programme included an experienced programme director, a real need for training, centre manager involvement in the programme and my close knowledge of the planned curriculum in IVTB training centres and of the local context including that of the the trainees.

I was aware of the limitations of my design. It emphasised pedagogical-content-knowledge (Shulman 1987) without provisions for updating the trainees' content-Knowledge. In my professional judgement direct teaching blended with related on-the-job experience was appropriate for local trainers lacking a good command of English language and self-learning culture.

The formal 'Summative Evaluation' designed to test congruence in the planned and the implemented curriculum in **appendix two** was very encouraging to me. Twenty from (23) trainees completed the programme successfully within one academic session. Other positive indicators included almost 100% attendance and high active trainee participation in training sessions. The training programme generated a great interest in trainer training amongst the trainees who began with little belief in trainer training. According to the centre managers the quality of trainee performance in classrooms improved noticeably. Two of the trainees later became mentors to their colleagues. The centre managers also reported positive attitudes towards their from trained trainers. I was highly pleased with

these reports.

A few blunders occurred due to lack of previous teacher training experience of the participants. The MES and the IVTB ignored the 2/3 rd of the on-the-job training part of the programme and labelled the programme as a 300-hour part-time training programme. The Certificate awarded to the trainers was of a little value with a wrong programme title, no reference to the programme content, performance grades of the participants and the University of Bath involvement in the programme as a moderator to enhance its credibility within and outside Mauritius. This error may be attributed to lack of experience of IVTB and MES in examining and certifying teacher-training programmes but It was surprising for me that the moderator from the University of Bath also failed to support this discrepancy between the written planned curriculum and the implemented one. The local counterpart, being trained to replace the consultant, failed to complete the training programme successfully.

To make matters worse, during the middle of the programme, after the general elections in the country, there was a change in government. As a result, the IVT Council, the director and several other key persons of the IVTB changed. The newcomers had a little appreciation of trainer training and that of the work of the consultant. By this time I got tired of training so many people both horizontally and vertically with little active interest in the programme. I did not care to brief the new management busy establishing themselves in their new jobs. I left IVTB at the end of the first trial of the programme leaving full details to continue the programme in future. According my professional judgement the programme produced remarkable effects in a short time and in a very difficult situation. However, the curriculum development did not meet the requirements of the K&P model.

### **Discussion in the light of the K&P Model**

My design met the criteria of '**internal consistency**' (Kessels & Plomp 1999). There was high consistency in objectives, content, teaching-learning method and assessment strategy. The planned curriculum, the training needs and the operational curriculum matched to a large extent. The programme achieved the planned objectives under my leadership as a consultant. However, IVTB failed to link the success of the training programme with performance on-the-job due to lack of '**external consistency**' and an appropriate HRD policy in IVTB at that time. A 'Relations approach to curriculum development' demanded a suitable institutional training policy, management active involvement in all aspects of the programmes and a high trust and support for the programme director. Under the guidance of the knowledge of this paper this programme

might have ended differently with a high possibility for its future sustainability by IVTB. This case taught me that the K&P theory (1999) has a high potential to enhance training with performance in organisations.

## **Case Study Two**

### **School-based Curriculum Development in a Technical Institute**

#### **Introduction**

In the following case study I was a consultant in curriculum and staff development invited to guide a technical institute in the South Pacific to offer training programmes relevant to the needs of the local industry. I managed to create a sound system of school-based curriculum development linking industrial needs, the planned curriculum and the operational curriculum in a collaborative culture amongst the consultant, the management and the teachers. All the stakeholders involved in the programme were satisfied with the results at the end of the project. In this case I intuitively used the K&P 1999 model without its discursive consciousness.

Success came from a real need for a collaborative action by the stakeholders, the technical competence and character of the consultant, a principal who took an active part in all aspects of the project and mutual respect and trust between the principal as an insiders and the consultant as an outsider. In addition to the following accounts my MPhil dissertation (Punia 1992) provides more information on this project for those interested to learn more of the project.

#### **The Context and the Problem**

The technical institute was planning, implementing and evaluating its own training programmes without any external support. I explored the nature of curriculum development in the institute with nine studies of teachers' thoughts on their curriculum and instructional planning practices. I found that the teachers mostly used content-based imported curricula. Assessment of student performance was loosely coupled to the curriculum and teachers implemented the curriculum without management support and control. There was a real need to introduce a systematic approach to curriculum development.

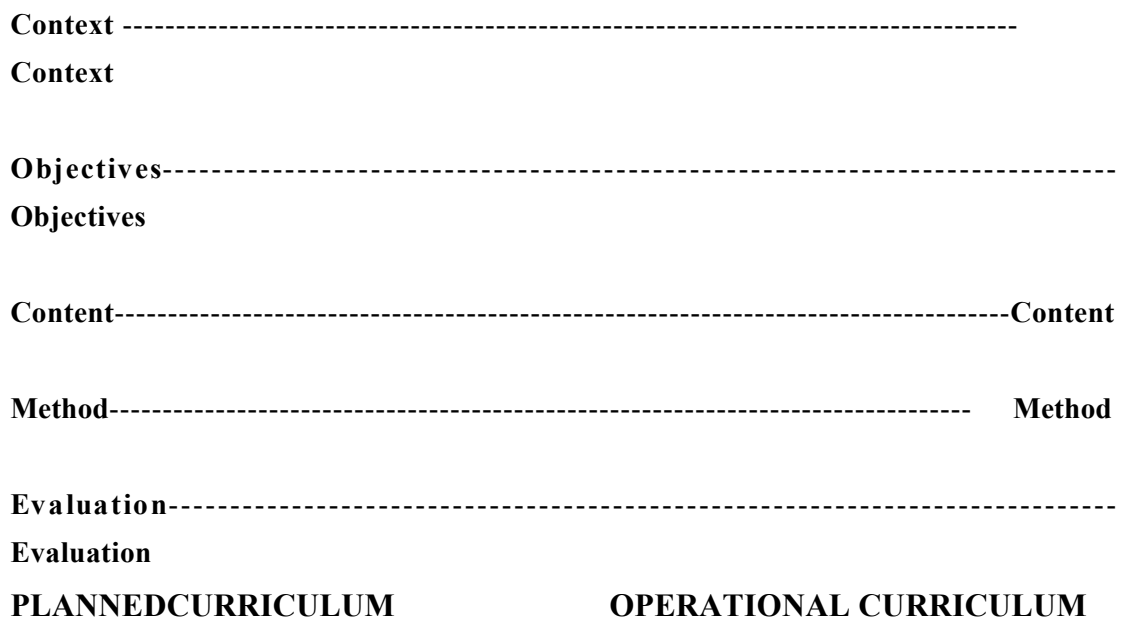
The teachers and the management of the institute did not appreciate the need for linking the planned curriculum to the operational one and to monitor the gap continuously. For instance, the management were willing to support teachers through staff development and additional resources but they were reluctant to be directly involved in monitoring the planned curriculum due to lack of competence to undertake such a task. The teachers were satisfied with more time to plan, more training and teaching-learning materials without any accountability on their part. I had to create a need for change by showing gap in the current practice and the aspirations for the future. To accomplish it I managed

to convince the stakeholders of the fact that if the institutes were to achieve the planned learning objectives of the planned curriculum in producing students useful to industry, the management, the consultant, teachers, students and industry had to work collaboratively.

We used the Tyler model (1949) as the guide to prepare the written planned curriculum. I designed the whole system for School-based Curriculum Development (SBCD) with a 'Teachers Record Book' to keep teachers' records of the operational curriculum to compare the planned curriculum with the operational one and to take remedial action by the stakeholders to close the gap on regular basis. I also assigned clear roles to the various partners to the scheme and provided short training programmes to the participants to gain competence to operationalise the system.

**The Emergent SBCD Model**

The following SBCD model is based on the experienced teachers' instructional planning practices in the institute (Punia 1992). I learnt that experienced teachers in the Institute prepared preactive plans before interactive teaching, they followed them during interactive teaching in the light of the reality of the classroom and reflected on their interactive experience to make adjustments to future preactive plans. The integrated system led to their professional learning and curriculum development simultaneously. The relationship between teachers' preactive and interactive plans was a dialectical one. Based on the findings from my research and observations I created the following model of institution-based curriculum development to provide a fit with the current practices in the Institute.



## **SCHOOL-BASED CURRICULUM DEVELOPMENT**

This model eliminates the major problems of the Tyler model (1949) aimed at improving the quality of the planned curriculum without regard for implementation problems such as contextual influences, and the professional competence of teachers. This model is based on a thorough analysis of the context including the nature of students, the teachers, the management, relationships with outside environment, availability of required resources, expertise, time to plan and so on. In this model the interaction between the operational and the planned curriculum is dialectical in the sense that the two influence each other continuously and mutual adjustments occurs to keep the gap between the planned and the operational curriculum under control.

In the above model the disjuncture between the planned and the operation curriculum needed monitoring by the stakeholders collaboratively. Most importantly, the achievement of the planned learning objectives became the joint responsibility of students, teachers, management, the advisor and the industry within a collaborative culture. It is key element of this model. The literature from elsewhere supports this model.

Stake (1967) first used the idea of comparing the “intended” to the “operational” in his ‘countenance model’ of educational evaluation. Skilbeck (1982) proposed a similar model for school-based curriculum development commencing with a thorough analysis of the context meaning the culture of the school. However, Skilbeck (1982) emphasised the improvement of the technology of the system only. Marsh et al (1990) also present a model of school-based curriculum development with emphasis on the key role of stakeholder involvement in the curriculum change.

In the proposed model, people development and system development and context are integral parts of the whole. In this model the problems of top-down and bottom up strategies of curriculum development are considerably reduced by the third alternative offered in this model.

SBCD in the literature is reported to have some drawbacks including an idealised image of teacher professionalism; lack of public knowledge of curriculum development and exclusion of other interest groups from curriculum development. However, many of these drawbacks do not apply to this project. For instance, this model was based on collaboration amongst all stakeholders and all the information was made public through monthly newsletters, institute’s annual professional journal, consultant’s monthly reports to his employer, seven booklets produced to record the accomplishments of the four-year

project for the institute to sustain the effects in the future.

The system worked as expected. Generally teachers kept all the records, which they discussed with the management at regular intervals. Mostly it was a simple matter of adding or removing parts of the planned curriculum and a matter of supporting teachers in the form of additional resources and training. However, there was some reluctance from teachers to keep records properly and from the senior staff lacking confidence to discuss curriculum matters with teachers. The system needed further professional guidance, additional time and experience to derive its full potential but in a short time a collaborative culture amongst stakeholders had developed fully and it was a significant achievement.

### **Project Summative Evaluation**

At the end of the project the stakeholders met in the form of half-day seminars to evaluate the project, which was considered a huge success. The quality of the planned curriculum improved and the gap between the needs, the planned curriculum and the operational curriculum had disappeared significantly. Above all the project resulted in tremendous staff professional development. The institute changed from a reactive one to a proactive one and the failure rate amongst students dropped by 10%.

The above model offers an excellent site for teacher trainers, curriculum developers and consultants working with teachers to research teachers' theories of curriculum development (Ross et al 1992 & Robinson 1993). Schubert (1992) stresses the need for this type of research when he wrote: "Those who want to use research to educate teachers must figure out ways to tap the experiential insights and understandings of teachers as a new and important kind of research" (Schubert 1992, p. 271).

### **Discussion**

This project is different from the projects in Kessels & Plomp (1999) research involving training in industry and from the TCVT project described in the previous section. This project involves a public technical institute, like the technical colleges in the UK and the TAFE colleges in Australia. Unlike training, the impact of vocational education in such institutions is usually measured by the students' success rate in passing examinations and less by the relevance of the planned curriculum to meet stakeholder needs.

**This project met all the conditions of the Kessels & Plomp (1999) theory.** There was internal consistency amongst various components of the curriculum development. A collaborative culture amongst all the stakeholders (the management, the teachers, the consultant, industry and the ministry of education) and high trust in the consultant

assured external consistency. The presence of the real problem in the institute, an excellent relationship between the principal of the Institute and the teachers' trust in the consultant's technical competence and personal character contributed towards a congenial environment for the success of this project. I believe Kessels & Plomp (1999) provide me with a useful framework to explain the success of this project and to guide the successes of similar projects more explicitly elsewhere.

#### **Section four**

### **A Profile of Various Practices and a Glimpse into the Future of Curriculum Development in the Context of Self-learning**

The main goal of vocational education and training (VET) within industry is to improve individual and organisational performance. However, often its achievements have been less than satisfactory. Poor quality VET can lead to loss of motivation to further training amongst learners. It can lead to lack of faith in training to improve performance amongst training providers. Kessels & Plomp (1999) have produced a useful theory to derive enhanced benefits from training within industrial organisations. In the past VET has relied heavily on systems approaches to curriculum development. Kessels/ Plomp (1999) has developed a better model incorporating the systems approach with the relations approach within appropriate HRD policy.

In this paper I have attempted to extend the use of Kessels & Plomp (1999) theory further. Firstly, I have added a model for HRD strategy/policy involving training and non-training problems. Secondly, I have shown that the findings of Kessels & Plomp (1999) theory are useful to link training with performance for training within industry and for institutional vocational and technical education and training. My experience of the VET has shown that vocational education and training can function at several levels listed below.

- 1. Haphazard VET without any clear purpose.**
- 2. Systematic training to provide knowledge, skills and attitudes determined from a needs analysis but without a clear link of training with implementation of training effects to enhance performance on-the- job.**
- 3. Training combined with a strategy to implement its effects to improve individual and organisational performance.**
- 4. Training with Kessels & Plomp (1999) framework but, without cost-benefits concerns**



## **5. Training with a clear HRD policy and strategy to improve practice with a minimum cost.**

At each level VET becomes more complex and different of knowledge, skills and attitudes are involved at each level. I found that very few organisations appreciated this complexity. It may be useful to realise that Poor quality training can lead to demotivation in future learning amongst audience and to loss of faith in training to affect performance. Training programmes conducted by experts on behalf of their clients without active stakeholder involvement produce limited impact. According to Kessels & Plomp (1999) training programmes have the potential of becoming highly effective to improve practice when systematic curriculum is blended with relations approach in the hands of a competent programme developer. To enhance the potential of their theory I have suggested that VET has to be conceptualised as an aspect of Human Resource Development (HRD) policy.

In short, all levels of training do have some effect on performance. But K&P (1999) theory combined with a sound HRD policy in the light of my HRD model presented in this paper is likely to produce the maximum effect with minimum cost to an organisation. Thus the concept of levels of training might be a useful guide for policy makers to establish realistic goals for training interventions aimed at improvement in human performance within organisations working with top-down strategies used to improve human potential.

### **The Emerging Patterns of curriculum development for the 21<sup>st</sup> Century.**

In the context of learning organisations and life-long learning, individual learning in all contexts is likely to assume more importance than teaching & learning in formal settings. Thus the concept of curriculum and its relevance is also likely to change dramatically. The recent work of the following scholars indicates this trend.

Fullan (1993) wrote: *"Teachers capacities to deal with change, learn from it, and help students to learn from it will be critical for the future development of societies. They are not now in a position to play this vital role."* (P.11). Young (1998) presents the idea of a '**connective curriculum**' to promote connections in all types of knowledge from formal and informal in contexts. Elliott (1998) regards curriculum to be a **pedagogical experiment** to be conducted collaboratively within a network of relations within and beyond school boundaries using action research. According to Whitehead (1999) professional educators create their own curriculum for their professional development and social development to produce their own practical knowledge based on their values.

Krishnamurti (1987), a renowned spiritual leader of Indian origin, considered life as curriculum for self-development. According to him learning is not about the generation of knowledge for later use. It is about learning in the present from each life experience from moment to moment. The competency-based model for learning used in VET in the UK places the responsibility of learning on students and on training providers. According to Wolf (1999):

**The awards are meant to reward, and in the case of GNVQs, explicitly encourage learners to take responsibility for their own learning: to cover material as fast as they are able or slowly as they need, and to get credit for things they have done in the past; and not to be constrained by a schedule of examinations. Portfolios are conceived of as candidate-led, since this can promote candidate involvement and responsibility for their own assessment (NVQ 1995, p.31).**

In this model lead bodies from various sectors of the economy identify competencies and CNVQ makes awards. Curriculum development is left to the VET providers and the students. How far this model will succeed remains in the future. As mentioned previously over the past twelve years this experiment has not produced the expected results. The sudden leap from training to self-learning will take time. But we have to make a start now.

In the context of modern economic competition the national governments are experimenting with different strategies to make their educational systems relevant to the economic needs of their countries. This paper shows that in vocational education and training curriculum and curriculum developers have travelled a considerable distance in their pursuit of relevance in curriculum development, which is a very complex process. No doubt the present pursuit is likely to continue with changes in the context. The professional educators in curriculum development have to be familiar with these changes so that they can make appropriate decisions suitable for a given context. It involves vast technical and contextual knowledge. In my view in addition to the personal character of the professional these are the important attributes of a professional educator.

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