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CONDITIONS FACILITATING TEACHER DEVELOPMENT IN SINGAPORE SCHOOLS

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Abstract: This paper examines the conditions that facilitate teacher development in Singapore schools. It looks at teachers' perceptions of their roles within the Singapore education system and how this affects their professional lives. Five local schools were studied with a mix of research methods using a primarily phenomenological approach. A survey of teachers' background and professional development for teachers with four to seven years of service in their schools was first conducted. Interviews were carried out with a purposive sample of these teachers. Findings showed that, generally, teachers in Christian mission schools were enabled to develop and become more effective by the strong, well-defined moral and ethical culture found in such schools. This tradition was largely absent from government schools, and was often compensated for by a teacher's ability to reconcile personal beliefs and perspectives with conditions in the school environment. Frequently, teachers attributed the importance of these beliefs and perspectives in their professional development to their family and educational background. Other factors are also discussed. A conceptual framework to describe the process of teacher development in Singapore, and some recommendations for future development, are also proposed.

Introduction

From 1996 to 1999, a study (Chew, 1999) was carried out with the main aim of ascertaining whether a sample of Singapore schools made provisions for continual and effective teacher development. The starting point for the study was the perspective of the teacher, and how teachers in these schools viewed their own development and the reasons for their progress or lack of it.

Since the starting point was one which was intrinsically subjective, and yet the study was grounded within objectively measurable phenomena, the research methodology was designed to use a mix of methods: a quantitative survey to give a demographic comparison with the past and a baseline for assessing change, interviews to understand the reasons behind teachers' choices and life changes, examination of the social and material environment in each school to see how these might influence, or might have influenced, these events.

The investigation, therefore, was a naturalistic inquiry focussed on assessing the impact of biography and circumstance on the development of teachers in the natural environment of the Singapore schools in which they work. Humans (teachers, in this case) make choices of their own based on what goes on around them (and what they think goes on around them), and are able to reflect on events and respond to circumstances as they consider appropriate. This study sought to evaluate real-world information from a sample of teachers so as to construct a valid picture of their perspectives and responses, and how these are developed.

It was hoped that the study would give a general idea of the extent to which teacher development was supported in Singapore schools, based on this small sample. Although surface statistics can provide measures of teacher development such as total hours of training per year, the mixed-method

approach was designed to see how teachers themselves would describe how they had developed and why.

Methodology

The study was based on a sample of schools extracted purposively from those in Singapore's South Zone, which has the highest population density and variety among schools in the country. The five secondary schools in the study were selected for their range of basic characteristics.

They included two government schools ('Highway Secondary' and 'Brightview Secondary'), a government-aided school ('Rosehill Convent'), an autonomous school ('Graceland Methodist'), and an independent school ('Faithlight Independent'). The last three were Roman Catholic and Protestant mission schools with different orientations. Three of the five were mixed-sex (or 'coeducational') schools, one was a boys-only school, one was a girls-only school. Their principals included three men and two women. In terms of academic achievement, the schools spanned a range from somewhat above the national average to somewhat below that average; however, since all five schools were chosen from the same geographical region, there was considerable overlap in terms of their student demographics.

The target population consisted of teachers who had been in the profession within their respective schools for a period of at least three years and not exceeding eight years. These respondents were surveyed using a questionnaire very similar in design and content to that used by Lau (1968) and Soh (1983) in their respective landmark studies of teacher populations in Singapore. In particular, the same sort of biographical data and data on motivation for teaching was collected, so that some comparison could be made. The questionnaires were sent out and received 'blind'; that is, each questionnaire respondent was not asked to provide a name and there was no direct means of connecting respondents to their questionnaire data. However, the school returning the questionnaire was known, and where the sample was small, it was possible to attempt to identify individual teachers (and confirm their identities by asking them) without breaching confidentiality.

Teachers who did respond to the survey were then purposively sampled as far as possible on the basis of their differences in race, religion, sex, and the degree to which they had responded or were likely to respond to earlier requests for information. As many teaching disciplines and types of personal background as could be differentiated were represented in this purposive sample.

In some cases, the number responding in a given school was small enough that all of the respondents were selected. Such interviews gave a better picture of the significance of the survey data. In particular, the general interview schedule was designed to elicit the perspectives of these teachers on their vocational contexts.

The interviews also were designed to clarify details of their biographical backgrounds and the reasons they had chosen to enter and remain in the teaching profession. They were also asked about their training, initial experiences, and present perspective on their professional career. The same basic questions were asked in each case, but respondents were allowed to elaborate; in many cases, further questioning was used to elicit information on changing perspectives and responses to the professional environment: interviewees were asked to reflect about how their pre-training experiences had affected their initial perspectives, and how their experiences and thinking had changed those perspectives over time.

To close the interview, interviewees were asked to describe their present attitudes towards their school, students and the education system, as compared to past attitudes. They were also asked

describe their impressions of their professional futures. Such information served as one measure of the respondents' level of satisfaction with their present situations.

In addition to the survey and the subsequent interviews of teachers, a brief dialogue with each principal and on-site examination of each school environment were carried out. Such measures were designed to provide additional context to the narratives provided in the interviews, and to confirm some of the details of those narratives. As is usually the case with ethnographic situations, member checks were made where interpretation or reconstruction of circumstances might have been susceptible to observer bias.

The principal researcher also had the advantage of being a legitimate member of the community in Rosehill Convent and Faithlight Secondary, being a teacher in each for at least a few years. In these cases, it was possible to reconstruct the environment and the significance of various events more completely where teachers in these schools were concerned. This was especially true of Faithlight where he was heading the Science Department from 1997 and had better access to useful information.

Data Treatment and Verification

Questionnaire data was susceptible to simple statistical treatment to give a basic profile of the teachers within the sample. Biographical data was tabulated and summarised wherever possible to give the total number of responses of each possible kind in every section of the questionnaire. This gave a profile of the teachers in terms of age, sex, race and other demographic statistics.

Where a free written response was given, it was treated as part of the contextual data for each school. On the occasions that interview respondents had also, unasked for, given their names on the questionnaires, these responses sometimes provided a basis for reducing the breadth of the routine interview questions and asking more probing questions instead.

The 'motives for teaching' section, designed to parallel the earlier studies mentioned, was treated the same as equivalent data in those studies: The possible responses were separated into 7 groups corresponding to the six used by Soh; the difference was due to the category 'Intrinsic nature of teaching' being split into 'Interest in teaching itself' and 'Interest in children (those taught)'. This split was made to help differentiate between those who placed greater value in technical skills and the process of teaching, and those who placed greater value in interaction with students and nurturing them as learners in a holistic way.

The percentage of the overall sample who indicated a given response from the 30 possible ones provided was tabulated for each question and the mean of these percentages found for each category. This was then compared with equivalent data in Soh's study (1983) to provide a comparison between the 1966 and 1981 samples and this one, a 15-year gap between them. It should be noted that the samples in those studies were much larger than this one (1966, $n = 2046$; 1981, $n = 562$), that the populations are of different types (1966 & 1981 studies were on trainee teachers) and that the samples are not comparable in all respects.

The questionnaire data therefore served two main purposes: establishing the general demographic differences between present-day teachers and previous batches of teacher trainees, and allowing the identification of teachers (in some cases) whose attitudes and motives for teaching differed from the general profile — and were therefore suitable for special treatment.

Treatment of the interview responses was somewhat different. Although the same questions were asked of each respondent, individual answers ranged widely in content, intent and depth of response. Wherever possible, responses were cross-checked against other responses from the same school to provide a better picture of the professional environment from several different points of view. When all responses had been received, informal conversations with principals gave the 'official' perspective of the school involved.

From these data, certain biographical patterns were identified, some of which accorded with existing stereotypes (e.g. the teacher who teaches because a close relative was also a teacher and provided encouragement and inspiration). These patterns were taken as explanations for why teachers had come to think of the teaching profession as desirable. In conjunction with other facets of personal history, a picture of how a person might enter the profession based on this initial perspective could then be constructed.

The answers to subsequent questions were then used to build up a picture of teachers' current perspectives, several years after pre-service training and induction as a beginning teacher. The journey from initial perspective to current perspective was also traced, and the steps on that journey related to various factors described by the respondents. This phase provided material for analysis to discover what exactly these factors were and how they affected the respondents.

The last section of each interview, in effect, asked respondents to reflect on the process of socialisation they had undergone thus far, assess the state (working relationships, sense of achievement, sense of satisfaction) of their professional lives and propose a course for future events where possible. The responses from this part gave some indication as to whether the outcomes of the various socialisation processes and pressures were positive or not — and in some cases how these could be made more positive for themselves and for future teachers.

For the various responses, verification was supplied by other triangulative sources of data, which included the following:

- observational notes as a participant or non-participant observer
- semi-structured open-ended short and long interviews
- transcribed longer interviews checked by interviewees
- analysis of school documents (magazines, circulars, newsletters etc)
- informal conversations in which staff requested no recording be done
- checking of facts through simple verification by staff involved
- survey/questionnaire on staff demographic data

(Throughout the study, the minimal criterion for assumed veracity of a reported fact pertaining to the research was one supporting official document or three independent sources.) In addition, the following sources of 'people-based' verification were also used:

- member checking by face-to-face verification
- member checking by answers given to printed questions or surveys
- cross-member checking by purposive questioning of senior staff

(Throughout the study, staff who had been with the school long enough to have 'insider' knowledge of events mentioned were requested to provide corroboration for specific interpretations

of fact. Where opinions were voiced, senior staff were also requested to assess such opinions in the light of their own perspectives.)

In all, five schools were surveyed, with a total of only 37 teachers falling within the target population. Of these 37 teachers, 30 responded to the survey (81%). Altogether, 15 teachers and one principal provided in-depth contributions to the final data collection. The principal researcher was included in this total because of his status as a participant observer in two of the five schools.

From all this material, it was possible to highlight certain elements of significance to the discussion of teacher development. Common threads in the individual narratives allowed a rough picture of the professional development of teachers in the Singapore context to emerge. This emergent tapestry was then used as a basis for proposing a model for factors affecting teacher development (both positively and negatively) which would be relevant to the local context, and ways of enhancing this development.

Findings

Besides the survey data, the findings of this study also included two major case reports for the schools in which the principal researcher was a participant observer, and three minor case reports for the three other schools. The themes and threads which emerged from the various data sources as they were assembled into more coherent units also constituted a valuable portion of these findings.

The Survey

Although the sample size was not large enough to draw statistical conclusions at a high level of significance, a few points of general comparison could be drawn between this study and the earlier studies by Lau (1968) and Soh (1983).

In the sample under examination, the male:female ratio was approximately 1:1. For Soh, this was about 1:5. In terms of race, Soh's sample was 77.2% Chinese, 3.9% Malay, 14.7% Indian and 4.3% others (values rounded). The current sample showed some statistical differences from Soh's especially in the Chinese and Indian population — 86.6% and 6.7% respectively. There were 3.3% Malay and 3.3% others. These values also show under-representation of Malays relative to the official statistics, which give a national population distributed as 77.2% Chinese, 14.1% Malay, 7.4% Indian and 1.3% others (1997 data from Singapore Department of Statistics). As far as this study is concerned, this phenomenon might be explained by the over-representation of Catholic or Protestant mission schools in the sample — as most ethnic Malays are Muslim by religion, they are likely to be under-represented in such schools.

The current profile for this shows 10.0% A-levels, 63.3% BA/BSc, 20.0% BA/BSc (Honours), and 6.7% with other degrees. Soh's data shows 45.6% A-levels, 33.4% BA/BSc, 15.7% BA/BSc (Honours), and 4.3% with other degrees. In other words, the typical teacher of the 1990s has a higher level of formal education than in 1980. This is to some extent due to increased levels of education in the general population, but another factor is that entry qualifications for the teaching profession have also become higher since then.

Soh's sample showed that at least 67.9% of teacher trainees had no teachers in their immediate families. The current sample was divided as follows: 56.7% no teachers, 23.3% 1 teacher, 10% 2 teachers and 10% 3 or more teachers. This is partly a reflection of the higher premium placed on education at the national level over the years. It also suggests that having another teacher in the family might influence a person's career decisions in that direction.

The socioeconomic status of parents in the present sample was higher on average, with significantly more fathers having technical or service jobs as opposed to semi-skilled and unskilled jobs. About the same percentage of fathers have professional/managerial or educational/executive jobs. It is in the data for mothers that a great difference can be found: the percentage of trained working mothers was 7.8% in Soh and was 33.3% in this sample. As in the data for teachers' educational qualifications, these percentages reflect increases in the educational level of the general population in Singapore, especially among women.

The motivations which lead to teachers joining and continuing in the profession had not changed significantly between Soh's survey of pre-service teachers and the present sample of experienced teachers.

As in that survey, the three top categories of motivations were altruism, interest in teaching, and opportunities for self-actualisation. This can be compared with Goodlad's findings (1984, p.171) that the prime reasons for entering teaching were clustered around the nature of teaching itself: the desire to teach in general or teach a particular subject (22%, N = 1350), the idea of teaching as a good and worthy profession (18%) and a desire to be of service to others (17%).

The Interviews

From the life stories of the teachers and the issues raised by them in their interviews, certain themes predominated. Teachers seemed to return to these themes frequently, even when the questions asked did not refer to such matters, and that must show their relative importance to the mind of the teacher. These themes were:

- moral and ethical values — in particular an altruistic outlook and a sense of duty which often included an element of self-sacrifice — and the background factors which influenced the establishment and maintenance of such values;
- a loss of pure altruism and the effect of realism on ideals — which nevertheless did not result in complete loss of idealism, and often resulted in personal equilibrium with respect to the pressures of the environment;
- the school as support structure and place for negotiation and dialogue;
- the role of school culture and ethos in providing an environment compatible with the teacher's personal values and beliefs.

It was found that the teachers who seemed most effective and willing to stay on in the profession shared certain similarities in backgrounds and personal beliefs which paralleled the findings about schools.

In particular, effective teachers came from backgrounds which showed respect for education and a well-defined code of moral and ethical values. They themselves believed in the virtue of education and in such values, and intended to transmit this belief to their students. Altruism was a major motivation for entry to the profession, with the related love of teaching and concern for human development being other strong motivations. In many cases, the personal examples of family members who were also teachers was a deciding factor.

Effective teachers were also skilled at developing strategies for controlling and coping with change. In some cases, they were change agents themselves, developing programmes and suggesting initiatives; in others, they developed strategies aimed at satisfying prevailing requirements while also meeting the needs of a their personal ideals of education. They most enjoyed working in

environments which gave them support in the pursuit of their professional goals, and valued opportunities for collegial interaction and informal learning.

They particularly appreciated school cultures with a well-defined commitment to moral purposes, and with leadership which exemplified such commitment. This was especially true in cases where the value-system was compatible or identical with the their own. They were not averse to self-sacrifice in their professional lives, but were reflective and intelligent in deciding which educational goals were essential and which were not.

It was also found that the various schools in the sample seemed to have a few factors in common as far as effective development of teachers was concerned. These factors were: a stable moral and ethical environment; processes and personnel able to maintain and transmit the school's culture and values; long-term goals and vision; support for teachers in the form of personal autonomy, resources and encouragement for creative expression; a wide range of developmental opportunities; and a culture which rewarded and sustained teachers who could fit in with it.

These factors tied in well with the findings of researchers such as Fullan (1993) and Goodlad (1984). In particular, the seven factors which Fullan (1993) describes as leading to the growth of a learning organisation can be elaborated on with specific application to the Singapore context:

- commitment to a moral purpose — mission schools in Singapore may have an advantage as they already have a well-defined commitment in this area; it may also explain why the majority of the teachers sampled are Catholic or Protestant Christians, or Muslims;
- pedagogical knowledge — this seems to be given a sufficient basis in Singapore's pre-service teacher development programmes, but is elaborated on by reflection on classroom experience and by collegial interaction, which must therefore be encouraged;
- recognition of links between moral purpose and societal issues — in recent years, community service has been stressed in schools; however, schools must define their role also in terms of supplying the leadership (moral, academic, organisational) needs of society; the school is advantaged in this if it already has close ties to organisations which have a moral imperative — churches, para-church organisations and other religious bodies, for example;
- interactivity and ability to collaborate — this is fostered by a strong school culture in which formal and informal interactions are both encouraged, and in which negotiation and cooperation are similarly encouraged; an environment which forces teachers to adapt rapidly and yet supports their efforts to adapt is best;
- ability to use new structures (commonalities and communities) — this area was seldom mentioned, but schools which allow teachers to set up and design their own work units and plan their own work have an advantage; the more autonomy given, the more potential flexibility there is;
- continuous learning — although training and developmental opportunities are increasingly common, teachers find that time is a limiting factor; informal learning tends to be more appreciated than formal;
- ability to immerse oneself in dynamic complexity — Singapore's environment is one of rapid change and increasing complexity; since all teachers have to work in an environment which forces such immersion, it is the survivors and potential survivors who must be nurtured.

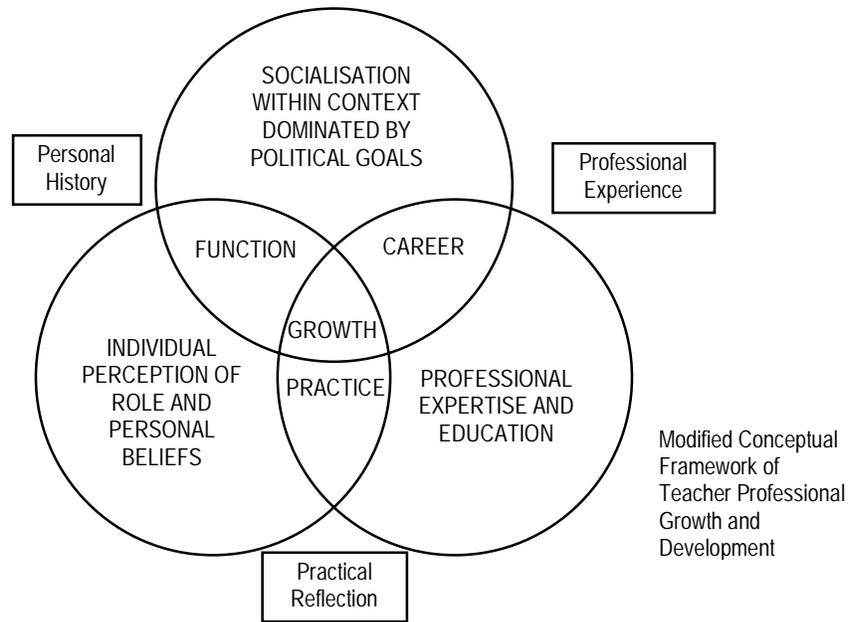
Proposed Framework for Teacher Development in Singapore

In the context of Singapore in the late 1990s, the professional growth of a teacher appears to be dependent on the tension or synergy between three areas in a teacher's life. A teacher has to serve society in a way which Government policy demands, because Singapore is a place in which the Government and its policies dominate in every aspect of life. A teacher has to teach with the skills and habits and mastery which a professional education supplies. Most importantly, as the findings show, a teacher's commitment to the profession is a function of how a teacher perceives his role, and what strong moral and ethical personal beliefs he has.

For a teacher to develop effectively, the way in which he has to serve society and the training and professional education he receives must be compatible with his personal belief system. In Singapore, this is not always the case. Where the overriding need for collective unity and consensus overrides the individual's beliefs, there is a danger that individual creativity and passion will be suppressed. Where the training and professional education reflect a philosophy which is different from that of the individual, there is a risk that the training will be discarded as soon as it is over, and the time spent will be wasted.

One obvious solution which is possibly the most dangerous is allowing national policy to completely determine what beliefs should be held and what form teacher education should take. In this case, the three dynamic areas collapse into one: socialisation of all teachers according to national policy goals. However desirable this may seem, the loss of individual passion and creativity will result in long-term weakening of the education system as a whole — for it is the individual's beliefs which drive him from within.

Some of the schools have effectively reconciled all three areas. They have pursued Government policies with dedication, but with the support of a culture based on strong moral and ethical traditions. While separate from the secular culture of the State, these cultures contain elements of support for State activities which are compatible with their moral and ethical code. When the teacher is able to see this, and is professionally educated to carry out the task of teaching, then the result is an empowered teacher — fulfilling national policies in a concrete and pedagogically-sound way, but driven by passion and commitment to a strong moral purpose. The interaction of all three areas can best be seen in the diagram shown below:



Recommendations

In the light of the findings of this study and the resultant proposed framework, some recommendations may be made with respect to the development of Singapore schools as learning organisations and teachers as learning individuals.

The findings indicate that schools need to develop cultures based on firm moral and ethical values, and the ability to transmit these values to newer members of the school. To this end, the important agents of cultural transmission seem to be the principal and other important stakeholders — specifically, school alumni, long-serving staff, and religious bodies where such are involved in management.

Principals should be given sufficient time in a single school to develop a culture which is acceptable to such stakeholders and to establish this culture in a way that defines it clearly and which can be transmitted clearly to new members (staff and students) of the school. A reasonable suggestion is to have a minimum six-year term for a principal; the educational cycle in most schools is five years, corresponding to the length of a Normal-stream course. A period of six years allows a principal to, at the very least, see a single cohort of students through from their first to final year, with an extra year to take stock.

Schools should attempt to build a strong alumni base. This acts as a reservoir for transmission of school culture and tradition, as well as a source of school pride and loyalty. In the long term, alumni can also act to support a school and uphold a well-defined set of moral and ethical values in a way unique to that school. Again, the role of long-serving teachers, and principals willing to maintain and propagate existing school cultures, is important if such alumni organisations are to thrive.

In addition, schools also need to develop a capacity for supporting creativity (whether in terms of facilities or attitudes) and informal learning. The educational ideals of creative and effective

teachers are thereby also supported, and they will be allowed to express their creativity and effectiveness.

A collegial spirit in the staffroom is also important for the induction and continued good development of beginning teachers, and informal interaction and generous mentorship are ways of sustaining this development. Such relationships and structures can be built up by fostering a 'family'-style environment, in which teachers are encouraged to share professional relationships with a personal basis — and to some extent, personal relationships with a professional basis. Amenities such as 'coffee corners' and staff lounges might help.

Lastly, adaptation and growth in response to pressure should be acknowledged, rewarded, and further encouraged. Some schools reward this with increased autonomy and control over the work environment for teachers who take on the challenge of new responsibilities successfully. Others provide monetary rewards, while some provide opportunities for new experiences. Whatever the reward, recognition of teacher efforts is always something that will encourage teacher development.

Here is where the role of leadership needs to be examined more clearly. Principals would seem to bear a heavy responsibility for teacher development. This responsibility cannot be discharged merely by arranging for formal in-service teacher training. More than that, leaders of schools must learn to build teams of teachers who will act to develop and transmit school culture, and who will create a collegial atmosphere supportive of beginning and developing teachers.

It is no exaggeration to say that a principal is nothing if he is merely only an able administrator. He must also act as a living example of commitment to a moral purpose in order to inspire heroic efforts in a Singapore that is constantly changing. To quote O'Toole (1996): "...values-based leadership may not be for everyone, but it is the only course open to leaders who wish to be effective agents of change".

This was clear especially in the case of the schools who were the main focus of this study. At both Rosehill Convent and Faithlight Independent, age-old religious tradition collided with modern technological and social change. Yet the secure framework of established moral and ethical culture provided a strong basis for the staff of those schools to adapt and transform their practices — under the guidance of principals who applied the tenets of faith to the challenge of the future.

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