Efficacy of a Professional Development Training Program in Macao to Assist Non-Native English Teachers Foster Learning Motivation in EFL Classrooms

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DECLARATION

I declare that this thesis, which I submit for the degree of Doctor in Education at the University of Durham, is my own work. This is not the same as any other work which has previously been submitted for a degree in any other institutions or universities.

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ABSTRACT

In considering the challenges faced by educators as a result of the rapid acceleration of globalization, the need for professional development programs to assist educators' awareness of how to respond to these challenges is now more critical than ever. Since the establishment of the Macao Special Administrative Region (SAR), in December of 1999, when the Portuguese Government handed administration of the territory back to China, there has been an increased focus on how to attract and sustain international investment in the region. Within the last ten years Macao has seen unusually rapid growth, especially in the Gaming, Hotel and Events industries, with a significant proportion due to the entry of American Corporations such as MGM, Wynn, and Galaxy. Now more than ever the Macao Special Administrative Region (SAR) Government would like to see an enhancement of the English Language acquisition process in schools throughout the territory. The purpose of this research investigation is to explore the effectiveness of a professional development program on the professional efficacy of local Macao English language teachers to affect student motivation in English as foreign language (EFL) classrooms throughout the territory. The constructs which frame this study will be defined in the literature as areas of collaborative action research, reflective teacher education, teacher professional development, social constructivism, teacher efficacy and student motivation. This qualitative study, which employs a collaborative action research methodology in its design, comprised two levels of examination:

I. What are the effects of an intensive professional development program on;
    a. an EFL teacher's practice?
    b. an EFL teacher's feelings of professional efficacy?

II. a. Can changes in a teacher's practice affect student motivation?

b. Can changes in a teacher's professional efficacy affect student motivation?

The following six sub-questions assist in focusing the examination:

1. Do teachers consider the professional development training beneficial?
2. Are participating teachers' *willing to* or *capable of* applying what they've learned in the training to their respective classrooms?
3. As a result of the training what changes do *teachers report* / *facilitator observe* as having occurred in EFL classrooms?
4. Have teachers perceived an increase in their students' motivation to learn English as a result of change efforts implemented?
5. Do teachers feel they can influence their students' motivation to learn English?
6. Do teachers feel adequately supported throughout the program?

Data sources comprising; the facilitator's notes and classroom observations, survey responses, professional teaching journals, students' pre & post responses to the motivational survey and documents including student work provided by the teacher participants were collected over an eight month period from October 2003 – June 2004. Triangulation using both quantitative and qualitative data collection tools was incorporated into the design to ensure reliability of the interpretation. The professional development program focused on in this study aimed for teachers to:

- Collectively set and work towards achieving common goals related to the facilitation of a communicative learning environment in the classroom.
- Reflect upon factors in their respective classrooms that could be impeding students' success with learning English.

- Understand how to select appropriate curricular materials to enhance the communicative learning environment in the classroom.
- Become equipped with tools and knowledge to design, initiate and assess a change program within their respective classrooms

Student motivation to learn English became the problem focused on throughout the training due to the fact that teachers unanimously identified it as a difficulty faced, in both primary and secondary EFL classrooms.

Though there is no intention to universally generalize the results of this study; within the limited context of the case studied here in the Macao SAR, teacher participants in the program perceived changes in their students' behavior which suggested an increase in motivation in their respective classrooms as a result of change efforts they initiated via this program. The experiences documented herewith warrant justification for further research.

I. INTRODUCTION TO THE STUDY

This thesis will explore the effects of a professional development training model customized for local teachers of English as a Foreign Language (EFL) in the Macao Special Administrative Region (SAR) of China. Globalization has placed an increased pressure on language teachers of the 21st century, which will persist until the regions of the world successfully move away from the hegemonic power structure that dominated its 19th century framework toward one less defined and still open to interpretation but nonetheless dependant upon collaboration and cooperation. While this transition marks an important opportunity for regions of the world that hadn't previously had any voice in the global discourse to participate, instability and uncertainty presently characterize this period of adjustment in many developing and underdeveloped regions of the world.

Though Macao has a relatively small population (550,000), it is considered one of the most densely populated regions of the world in that it is only 29.2 square kilometers in size (an area that had increased from 10.28 square kilometers within the past 50 years due to land reclamation projects according to the Direccao dos Servicos de Estatistica e Cencos [DSEC or Department of Statistics and Census]).

Prior to December 1999, when the Portuguese Government returned administrative power of the region to the People's Republic of China, Macao thrived from its gaming and entertainment industry, exportation of products from its small textile industries and its status as a transitory port providing access (especially for Taiwanese) into China. When China was granted membership status into the World Trade Organization in 2005 (WTO) most of the small industries that had been based in Macao were forced to move their production facilities to Southern China as the export quota was

now encompassed within the Mainland as a whole rather than any particular region such as Macao or Hong Kong. The Macao SAR government took provisions to retrain the local workforce that had been dependant on these industries for employment through programs established to reorient redundant factory workers to contribute to the tourism industry. In his Year 2000 policy address, the Executive Governor Mr. Ho Hau Wah began to prepare the citizens of Macao for the impending difficulties that would be faced by society with the dismantling of this industry: "…China's entry into the WTO and the abolition in 2005 of the global export quota system will further intensify challenges, which make it necessary for Macao to keep equipping itself, lay a solid foundation for economic development and boot its genuine competitiveness." (2000) Only the administrative headquarters of these industries remained in Macao. This shift in economic policy marked a significant change of focus in the job market and plans made by the Macao SAR Government to expand its gaming industry to lure foreign investment further catapulted the region into a predominately service-based economy.

Despite the fact that the economic climate of Macao has abruptly transformed; education and schools within the territory have changed very little. In response to pressure from the government however, the Direcção dos Servicos de Educação e Juventude (DSEJ), or the Macao Department of Education, began offering professional development programs in many areas to act as a catalyst for infusing change in the system as a whole. From 1999 – 2004 the DSEJ sponsored a wide variety of training opportunities for educators to take advantage of. Another noticeable difference was the emphasis on proficiency of English as a language that could assist Macao to become an international hub for casinos, hotels, conferences, events and international investment in

related industries to secure its development. In his 2002 Policy Address Macao Chief Executive, His Excellency Ho Hau Wah explained to the business community; "It is important to recognize that along with social development, foreign businesses also want better intermediation services so as to ensure this we need to build on advances in our language and commercial service organizations to realize our potential as intermediaries and develop Macao as a quality regional service center" (Ho, 2002). In the same address he implores educators to: "make more effort to reinforce students' practical skills and language training to improve flexibility in society" (Ho, 2002). No doubt the administrative focus on English language development was influenced by a joint report to the SAR Government by the Macao Development Strategy Research Centre and the Macao Association for Economic Sciences (Ieong, 2000), entitled *"Macao 2020: Long Term Objectives and Developmental Strategies in 20 years*" in which great emphasis is placed on enhancing the English language learning environment and increasing the number of Macao residents who are English language proficient, so as to secure the pathway for the internationalization of Macao.

Under great pressure to ensure that students of Macao graduate with a proficiency in the English language, many local English language teachers voluntarily participated in any training program that could enhance their teaching practice. Despite the fact that the region had been administered by the Portuguese for more than four centuries, the Chinese majority had always maintained control over their own education which, being strongly influenced by Confucian ideals, hold teachers responsible for student performance outcomes.

While Macao boasts great progress in its infrastructural goal to become an international hub, the two official languages communicated and officially recognized by the government from public announcements to legal documents are Portuguese and Chinese (the Cantonese dialect in particular). Nonetheless, English is a required subject for students from kindergarten through to secondary. Every school recognized by the DSEJ is required to incorporate a minimum of six to eight sessions of English per week in the curriculum which is equivalent to the requirements for mathematics. English is taught as a foreign language because in the greater community it is possible for students to grow up and never be faced with the necessity to use English outside their classroom or school environment. Despite this reality its acquisition is a valued indicator of academic prowess. Schools that are successful in producing linguistically capable students in English have a better reputation and graduates from these respective institutes not only have greater opportunity to enter university programs but have more opportunities on the employment front as well. Of the 138 schools in the region 93% are Chinese medium of instruction, 5% are English medium of instruction and 2% are considered international schools which utilize an internationally recognized curriculum and assessment standards.

In addition to its aspirations toward achieving international recognition there is a second reason for Macao's fascination with the English language even though it doesn't enjoy official recognition: this due to the fact that Hong Kong, as a close regional neighbor and former British colony has historically been Macao's first point of reference and competition. Unlike Hong Kong however, Macao has no standardized curriculum or

nationally recognized assessment tools through which to measure academic success at each or among schools.

1.1 Background to the study

The Macao Education Department (DSEJ) has issued a number of significant policy decisions within the last 20 years (DSEJ, 1994, DSEJ, 1995). The school system has come from an almost entirely Laissez-Faire system comprising 95% private schools to that of education offered as a public good whereby all students attending K3 – F3 are provided free education and the government subsidizes the majority of schools (DSEJ, 1997). With the exception of teachers employed at the three "international schools" (two of which are less than six years old) the majority of teachers in Macao are either native to Macao or Mainland China. Veteran teachers (those who have been teaching more than fifteen years and are permanent residents of Macao) are not necessarily trained teaching professionals, as the first graduating class of Education majors from the University of Macao was not incorporated into the local system until 1989. Prior to that there was a two-year teacher certification program organized under the auspices of the Catholic Church though this tended to produce resources for the diocese schools only, and the only other teacher qualification program in the region was one operating out of the South China Teacher's College in Guangzhou. In an attempt to upgrade the quality of teachers throughout the school system, in 1995 the DSEJ mandated all teachers to acquire professional certification in the area they teach before 2004. For primary teachers 'area' was defined in terms of developmental age groupings such as early childhood, primary or special education, and for secondary this is further defined as specialty in language (all humanities subjects), mathematics or science. While the government identified the Post

Graduate Certificate in Education (PGCE) as the prescribed program to attain this certification, to date 'language' is limited to Chinese: the PGCE does not offer English as a second language (ESL) or EFL specialization (nor for that matter, is the program offered using an English medium – thereby disqualifying anyone who doesn't speak Cantonese), despite the fact that every school in Macao is required to include English instruction throughout its curriculum.

The DSEJ has however, sponsored a variety of certificate courses, workshops and seminars which have been widely attended by English language teachers. These have, to some extent, succeeded in opening a professional discourse among educators, informed them of strategies that comprise good practice and begun to facilitate a community of professional sharing. We have not, however, witnessed obvious changes in practice or learning outcomes that are sustainable in the school and classroom environment as a result of these courses. It is suggested that there are three reasons why long-term changes have not occurred (Mann and Wong, 1999). First many training courses did not require the teachers to apply what was learned in their respective classrooms, so while teachers may have gained intellectual insight - support to directly apply what they learned was lacking. Essentially the sponsoring bodies selected most of the courses and as such, the content may not have been considered relevant to the actual needs of teachers and students in Macao. In addition, while individuals have become more aware, their instructional framework remains the same often dictated by a strict adherence to the commercial text that defines the "language curriculum," a proclivity towards using the antiquated grammar-translational methodology for lack of a better alternative and a rigorous assessment schedule set by the head teacher or English panel in the respective

school. The reality is that there isn't a large enough percentage of faculty in any one school influential enough to change school practice in a lasting way. A recent policy initiative encouraging school-based upgrading schemes has great potential to reform the English teaching curriculum and raise teaching and learning standards if utilized well. The greatest obstacle, however, lies in the reality that schools may not have the knowledge of how to upgrade effectively as there is no precedent for this.

Certainly, it is clear that teachers themselves want to upgrade, otherwise there wouldn't have been such a large response of individuals attending courses. From 2000-2003 more than 100 English language teachers who attended a variety of in-service training sessions were surveyed by the researcher[1] in regard to the overall effectiveness of their school's English language instruction. Teachers were asked to suggest what percentage of the student graduates from their respective institutions would have the ability to complete their tertiary education in English. Few were confident that after 15 years of study [kindergarten (3 yrs.), primary (6 yrs.), secondary (6 yrs.)] more than a limited percentage would be able to seize the opportunity to continue their tertiary studies in English or to get a job that required good English communication. While it is true that the majority of these teachers represent Chinese medium schools, even students attending these schools study English for at least one period each day. Fifteen years is a valuable amount of time if used well! (Refer to Table 1).

[1] Prior to this research project, the researcher was involved in a number of short term school-based training of local English language teachers. At the start of each training program, the teachers completed a survey – the results of which are illustrated in Tables 1 and 2.

Table 1: Teachers' Perception of Opportunities

The teachers were asked what percentage of their school's graduates would have the opportunity, if they so chose, to further their studies in an English medium tertiary institution, and/or be hired to work in a job that required English competence.

80% - 100%	60% - 79%	40t% - 59%	< 40%	Total
22 (16%)	35 (25%)	28 (20%)	54 (39%)	139* (100%)

[**n = 139 Primary and Secondary teachers representing 30 institutions using either English or Chinese Mediums of instruction*]

Collective teacher efficacy, which refers to "the perceptions of teachers in a school, that the efforts of the faculty as a whole will have a positive effect on students" (Goddard et al., 2000) may be an important indicator of the commitment level of teachers themselves to achieve results in this particular area. Woolfolk and Hoy (1990) take this idea a step further in arguing that schools in which staff collectively judge themselves as powerless to get difficult students to achieve academic success convey a group sense of academic futility that can pervade the entire life of the school. In contrast, schools in which the staff members judge themselves capable of promoting academic success imbue their schools with a positive atmosphere for development. This means that teachers who work in a school that does not necessarily have confidence in its ability to provide students with the education necessary for them to continue their post-secondary education using English may not be willing or for that matter feel capable on an individual level, to assist the students in this way. The same group of teachers was asked to indicate their perception of how their students responded to different aspects of English language class. (Refer to Table 2)

Table 2: Teachers' Perceptions of Students' Behavior & Attitude in Language Class

	High	**Medium**	**Low**	**Total**
Most of the students enjoy studying English	18 (13%)	77 (55%)	44 (32%)	*139(100%)*
Most students are independent learners	10 (7%)	44 (32%)	85 (61%)	*139(100%)*
Students do well on English assessments	2 (1%)	85 (62%)	52 (37%)	*139(100%)*
Students enjoy communicating in English outside of class	8 (6%)	51 (36%)	80 (58%)	*139(100%)*
Parents encourage their children to do well in English	36 (26%)	69 (50%)	34 (24%)	*139(100%)*
Most students understand that it is important to know a second language	39 (28%)	69 (50%)	31 (22%)	*139(100%)*
Students are confident reading in English	5 (4%)	49 (35%)	85 (61%)	*139(100%)*
Students are confident writing in English	3 (2%)	47 (34%)	89 (64%)	*139(100%)*
Students are confident asking questions in English	5 (4%)	28 (20%)	106 (76%)	*139(100%)*
Students are confident speaking in English	8 (6%)	37 (27%)	94 (67%)	*139(100%)*
Students work well in small groups or pairs	12 (9%)	82 (59%)	45 (32%)	*139(100%)*
Students have good English pronunciation	7 (5%)	63 (45%)	69 (50%)	*139(100%)*
% Of overall total	153 (9%)	701 (42%)	814 (49%)	

Probably the most revealing information of this survey is looking at the medium to high range responses: in only two categories have the combined percentages risen above 70% and these were that teachers feel strongly parents do encourage English and that students themselves understand knowing a second language is important. In response to the questions regarding students' level of enjoyment studying English and student performance on English assessments, there may be reason to explore whether correlation exists in these two areas. Due to the fact that English assessments in Macao schools are predominately teacher designed (Morrison & Tang 2003), there is a strong

probability that class instruction is focused on preparing students to perform well on these tests – thus satisfying government, parent and student expectations. Overall however, teachers do not seem to feel that students are very confident at all in using or applying their English skills (speaking, reading, writing, questioning and thinking) outside of class – all rate below 50% when combining the medium to high range responses). Although all survey responses represented the teachers' perceptions of student learning, these are likely connected to the teachers' own confidence or lack thereof to successfully impart these skills and behaviors. An important aspect that determines whether an individual will be successful is based on his/her self-efficacy level. Albert Bandura, the champion of social cognitive theory (Bandura, 1982, Bandura, 1986, Bandura, 1989), defined self efficacy as the overall understanding of oneself in regard to how capable or prepared one is to cope with certain tasks.

1.2 Context for the study

The training program which provided the context for this study was unique in that it required and guided participants to apply knowledge gained to complete a monitored change process in their respective language classes; to enhance their own language proficiency through participation in a 30-hour language course which modeled the communicative strategies and concepts introduced in the program; and to promote professional sharing across grade levels and among schools. Despite the fact that it is the teacher participants' perceptions of program effectiveness that is explored in the research, it is essential for readers of the study to understand the context that is being referred to, for this purpose an outline of the program highlights are presented herewith.

The 200-hour modular training program, entitled the "Certificate in Language Teaching", was fully sponsored by the DSEJ and facilitated under the supervision of one private tertiary institution in Macao. It was strongly recommended that primary or secondary English language teachers wishing to participate in the reform of language teaching practice register in teams of 3-5 from each school so that any change effort begun, may be sustained and that individual teachers would have peer support when confronting difficulties.

An intended outcome of the program was that through the collaboration of professionals committed to raising the teaching and learning standards of language students, a new conception of "good practice" could begin to emerge. In order to build on the experiences and expertise of those working with language learners, any changes made in teaching practice were monitored through an action research process. Teachers had the dual role of being both practitioner and researcher, a duality that their students would hopefully benefit from.

The program was designed to develop the participants' knowledge, competencies and skills as well as interpersonal behavior with language students, colleagues and parents. In order to maximize the benefits of the program, full attendance was required. This program was promoted as an in-service professional development certification program within the specialized area of English language teaching, and there was a requirement for participants to develop reflective practice in handling sensitive matters. The aims of the program were:

Table 3: Professional Development Program Aims

- To improve language teaching, learning and standards of student's performance;
- To develop teachers' abilities to diagnose strengths and weaknesses in language teaching, and to suggest interventions for improvement;
- To guide language learners to become independent communicators;
- To use a communicative language approach in the positive development and integration of speaking, listening, thinking, reading and writing skills;
- To develop and disseminate good practice in language teaching through facilitated collaborative action research, development and diffusion;
- To provide expert support for the development of language teaching and learning in Macao;
- To support grassroots initiatives in the development of effective language teaching and learning.

The program objectives were:

Table 4: Professional Development Program Objectives

- To redefine perceptions about language teaching and learning;
- To explore relevant language acquisition theories to enhance the process of second (foreign) language acquisition;
- To create a classroom environment that supports language acquisition;
- To maintain a communicative environment which supports student motivation and independence in regard to language;
- To sample a variety of language tools and instructional strategies;
- To engage in action research to administer a change in instructional practice;
- to promote the integrated development of communicative skills;
- To design and implement assessment tools to accurately plot the language development of individuals and language communities;
- To enhance the language curriculum so that students have greater opportunity to communicate naturally.

The program combined the introduction of content with application, the development of knowledge and the acquisition of skills/competencies of participants. The following represent a list of the essential content addressed in the program:

Table 5: Professional Development Content Addressed

- The development of collaborative, participatory action research by teachers;
- The diagnosis of problems in language teaching and learning;
- The planning of teaching and learning strategies and interventions for addressing the problems;
- The development, implementation and evaluation of a communicative language model of teaching and learning;
- Changing and evaluating classroom practice in the teaching and learning of languages;
- Sharing and disseminating good practice in language teaching;
- The development and inter-relatedness of reading speaking, listening, writing, critical thinking and questioning;
- Evaluation, self-evaluation and facilitated evaluation in developing good practice in language teaching;
- Motivating language learning in schools;
- Establishing and building on effective foundations for language learning and teaching in schools; progression and continuity in effective language learning and teaching.

The course was structured into five modules which combined lecture, workshop and discussion forums at the university and either individual or group tutorials at the participants' respective schools or in their classrooms.

Table 6: Professional Development Modular Outline

Module One: A communicative model of language teaching and learning
- Issues related to language development
- Creating and maintaining an environment that supports language acquisition

Module Two: Collaborative action research for improving language teaching and learning
- Introduction of tools and strategies to support language learners
- Managing positive change in the language classroom
- Setting aims and objectives for an action research project
- Establishing a vision for language success

Module Three: Implementing and sharing action research for effective language teaching and learning
- Language learners as active participants in their own development
- Providing students a vision to work toward
- Issues related to motivation

Module Four: Evaluating interventions and developments for effective language teaching and learning

- Analyzing the implemented changes, communicating strengths and weaknesses, responding appropriately to maintain language development

Module Five: Project presentations / analysis

- Teacher participants present the results of their research projects to all participants

In addition, a 30-hour course entitled Advanced English and especially designed to enhance the language proficiency of language teachers was required; while the structure and methodology of the course remained the same the course content was adapted so as to be more appropriate for the participating primary teachers or secondary teachers respectively. Collaborative tasks, discussion and activities provided students with the opportunity to understand how to establish affective language communities. The Advanced English course provided teachers with a first-hand experience of facilitated language development through use of the "Communicative Language Acquisition Methodology using a Consultative framework", introduced in the program (Baker-Malungu, 2001).Tutorial hours were scheduled among small groups and /or individuals on location at the respective schools (see appendix A).

1.3 Research Questions

The professional development program examined in this study was conducted over the span of one academic year from October 2003-June 2004 and sponsored by the Macao Education Department (DSEJ) to support local English language teachers in Primary and Secondary schools throughout Macao. A pilot running of the program had been conducted one year earlier with only primary teachers and recommendations made in reporting that trial were applied in the customization of the actual case reported and analyzed in this paper.

As a native English speaker, having worked as an EFL instructor within a number of schools in Asia (Taiwan, China and Macao) the researcher remains impressed with local Asian colleagues teaching EFL, many of whom have never traveled, and who comprise the mainstay of support and guidance for the English acquisition process in EFL classrooms throughout Asia. A striking characteristic of this population is their sincere desire to impart, to their students, the fruits of their own efforts and experiences with English acquisition. The study examines teachers not only as learners but as reform agents. The investigation details teachers' perspectives during and after having participated in the professional development program. The main objectives of this research were answers to the following questions:

I. What are the effects of an intensive professional development program on;
   a. an EFL teacher's practice?
   b. an EFL teacher's feelings of professional efficacy?

II. a. Can changes in a teacher's practice affect student motivation?
   b. Can changes in a teacher's professional efficacy affect student motivation?

The following sub-questions were formed to focus the exploration:

1. Which aspects of the training do the teachers report as most beneficial?
2. Are participating teachers' *willing to* or *capable of* applying what they've learned in the training to their respective classrooms?
3. As a result of the training what changes do *teachers report* /*the facilitator observe* as having occurred in EFL classrooms?

4. Have teachers' perceived an increase in their students' motivation (as a class rather than individually) to learn English as a result of change efforts implemented?
5. Do teachers feel they can influence their students' motivation to learn English?
6. Do teachers feel adequately supported throughout the program?

1.4 Purpose of the study

Numerous Asian countries in the region such as Hong Kong, Japan, Taiwan, Korea have adopted educational policies to bring into classrooms Native English speakers, for the purpose of enhancing students' language acquisition process. They are given preferential treatment as regards salary and benefits, (often native teachers are provided a housing stipend, travel subsidies, international medical insurance coverage and a starting salary that is 30% higher than the average local teacher). What is often not considered is the fact that many of these native English speakers have no awareness of the local culture, traditions or values that define their students and while it is possible to see successful cases of language acquisition; many successes are attributed to an individual's style rather than any particular pedagogical strategy or technique. As such there is little transference of knowledge or skill to the local, more stable teaching force required to sustain it. Foreign teachers don't often stay in teaching positions abroad for a long time so there is a rapid turnover in staffing, not to mention the fact that each new teacher may require anywhere from 6-8 months to adjust to living in a new culture, climate and environment. In view of the various problems brought on by these new policies it seems that the skills and capacities of local language teachers who themselves represent models of proficient users of the language, are an essential resource to be

developed. The purpose of this study is to explore a model of professional development that equips and enables local teachers with tools to become educational change agents.

1.5 Limitations to the study

The greatest limitation to the study was time. The study incorporated both quantitative and qualitative elements which were collected over the course of roughly one academic year during which time the researcher attempted to work around the schedules of very busy primary and secondary teachers who were already sacrificing substantial personal time to participate in the program. As well, this study isn't able to account for natural changes occurring within the individual subjects (teachers and/or their students) as a result of the passing of time or maturation processes.

Also, because classroom observations had to be scheduled in advance to satisfy the administrative requests of the respective schools there is little doubt that the *Hawthorne Effect* may have resulted, with participants (teachers and possibly students) changing their normal patterns, activities, speech and responses because they knew they were being observed, though it was often evident from student reactions when they were experiencing something for the first time (for example if a teacher was attempting a new format only for the purpose of the observation that the students had not previously experienced). In that the context for this exploration was a professional development activity it was not possible to eliminate the *Hawthorne Effect*, though it is perhaps unrealistic to think that teachers would expend effort to initiate change solely for the purpose of being observed; that would be a futile proposition. One option that researchers have in experimental design is to make both the control group and the experimental group feel "special" thereby allowing the effect to exist in both

circumstances and essentially cancelling it out as a contributing factor (Cohen et al., , 2007). As this was a case study, there were no control groups. In addition, the observation sessions had to be as unobtrusive as possible considering the fact that the idea of having outsiders come into the classroom for observation was a previously unheard of practice in Macao schools. As a result the researcher, when observing, had to take the role of non-participating observer and recorder as no video-taped sessions were allowed.

As was mentioned previously, the purpose of this study is to examine the potential of a model for professional development to facilitate a change process. No grandiose conclusions will be drawn from this one case study, though the researcher hopes it will generate a desire for further exploration and implementation.

A great deal of data used in the report represents written communication compiled by the participating teachers. Though a fairly substantial portion of the course took the form of exploratory discussion and dialogue, the nature of oral communication often placed the facilitator/researcher in the position of mentor or advisor, as such it was not possible to determine whether, at the time of interview or discussion the teachers were communicating ideas they believed in or ones shaped by the group – only in the form of teachers' individual reflections could it be determined how the ideas were interpreted and whether or not the communication resonated with the practitioner. In addition, many of the teachers were participating in this form of training using English as a medium of participation for the first time, thus many felt more comfortable expressing themselves in written form where they were able to formulate their ideas clearly before expressing them. As well, teachers valued written feedback from the facilitator so there were times

when problems, not addressed in discussions, were brought forward in an individual's reflective journal – because that individual wanted personal feedback.

Notable too, is the fact that this study was conducted with a limited number of voluntary participants who had attended the professional development program. It may have been more effective if comparative data had been collected from teaching colleagues of the same schools who were not involved in the program, though for reasons that will be explained further on, this was not possible. Nonetheless, the findings herewith provide a starting point from which further exploration can ensue.

1.6 Definitions specific to the study

Terms specific to this study are *EFL classroom, professional development, reflective teacher practice, collaborative action research* and *impact* as they apply to the primary and secondary English language teaching and learning environment in Macao.

In this paper the English as a Foreign Language or (EFL) classroom refers to the specific context of the English environment in this Asian region of the world; in that it is not an official language and students may not have easy access to English as a communicative system outside the classroom. There will be, however, instances throughout this paper in which English as a Second Language (ESL) or second language (L2) learning will be written, in which cases the reader should understand that it is the Macao situation being referred to; the literature however, doesn't always distinguish so the terms EFL and ESL are used interchangeably. The one distinction that should be acknowledged as regards Macao's English language teachers though, is the fact that there is a far greater responsibility placed on the part of the EFL language teacher to simulate

reality-based contexts in which students can practice application of their language skills in the classroom.

Freeman (1989) argues that training and development are separate but integral strategies. Whereas teacher training works on building specific aspects of teaching, teacher development promotes attitudes and awareness.

> "Development takes place if teachers independently decide which aspects of their instruction to alter. When allowed to critique and change one's own teaching behavior the desired development phase begins." (Freeman, 1989, p. 40)

In her publication *Enhancing Professional Practice: a framework for teaching* Charlotte Danielson (1996) describes management of the classroom environment as one of four domains that comprise quality teacher practice. Reflective practice is essential in stimulating professionals to share and try out new instructional techniques; a teacher who is confident in what he/she does and clearly understands why he/she does it, is more apt to share their experience than someone lacking this ability. Teachers armed with the capacity to reflect upon their own practice make more effective instructional leaders (Walberg and Keefe, 1986).

Collaborative or participatory action research is the task of creating an environment conducive to learning that rests heavily on the talents and self-efficacy of teachers working together on a change effort. Evidence indicates that classroom atmospheres are partly determined by teachers' beliefs in their instructional efficacy in that they create mastery experiences for their students. When teachers share a collective sense of efficacy that their school(s) can accomplish significant academic progress that outcome is plausible (Gibson and Dembo, 1984).

Change as defined in this study suggests a process that is designed to influence a positive alteration in behavior within the teaching or learning environment. Though without a doubt it is desirable for this change to be sustainable beyond the parameters of a limited period of observation, this study however, only examines the change impact within a designated period of study. Throughout the course of this research the professional development process being analyzed is referred to in numerous ways depending on who is communicating at the time. The participating teachers themselves often refer to the training as the "Project", due to the fact that the most significant aspect of it to them is the Action Research Project they are involved in, as well it is referred to as the "Program", the "Course" or the "Training" all of which may have specific implications in other contexts, though for the purpose of continuity in this study are considered synonymous.

II LITERATURE REVIEW

2.1 Using Action Research for Professional Development

Perhaps no student, teacher, administrator, parent or community member anywhere in the world would deny that improvement of the teaching and learning process is sorely desired. At the same time, many participants prefer to sit on the sidelines as observers of the change process, and often before enough time passes to ensure an outcome is sustainable, the process is stopped in its tracks due to criticism, uncertainty or lack of commitment to see it through. Improvement by its very nature requires a change effort. Whether the change is in attitude, cognition or practice, it is expected that the outcome will be different from the original context. It only stands to reason that a successful change process can occur only when all participants have an understanding of why it is necessary and a vision of how the change will benefit. Jurgen Habermas (1974, p. 40) asserts that 'in a process of enlightenment there can be only participants'. So what then of the role of critical observer, this too is important to ensure that the final outcome is indeed an improvement and not an ill-thought-out plan that is more problematic than beneficial.

The action research process explored in this work, suggests that all participants in the process assume a dual role, one as change agent and the other as critical self observer. Action research methodology is appropriate in a sociological or educational context where the participants involved are individuals who can visualize a better alternative, make plans to achieve it and evaluate the process as it unfolds.

> Candidate approaches would cast the practitioners as both subject and object of research at different moments, by adopting and alternating between the

> contrasting attitudes of practitioner and critical self observer of his/her own practice. (Kemmis, 2001, p. 91)

Within the proper context, action research methodology can produce reliable, valid results without the time and control constraints of scientific research methods. Though not applicable to all research contexts there are constructs in which action research is preferable. As Kemmis explains "Action research is oriented essentially toward functional improvement measured in terms of its success in changing particular outcomes of practices." (Kemmis, 2001, p. 92)

Donald Schön (1987) goes a bit further in suggesting that practitioners not only aim to improve their practice in functional terms but also to see how their goals, and the categories in which they evaluate their work are shaped by the ways of seeing and understanding themselves in context. It could be argued though, that the process of action research described here seems nothing more than reflective practice though the difference lies in the initiative taken to act as a participating member of a professional community. The action researcher observes his or her own situation in relation to community goals, reflects upon how it could be improved, plans what is required, implements the plan and reflectively evaluates the outcome thus proceeding to the beginning of another cycle.

It is worthwhile to mention that each action research endeavor is itself a case study though not all case studies employ action research. In other words, it may not necessarily be possible to universally generalize the outcomes of an action research process because it would be essential to consider the characteristics of the participants in each case, the dynamics that exist among the group and the context or, in the case of a

classroom, the school environment of which it is a part. This does not however, dismiss the outcome as irrelevant or inconsequential though it may pose problems in a replication endeavor. In response to the most common critique that case studies provide little basis for scientific generalization Robert Yin gives a very coherent response:

> The short answer is that case studies, like experiments, are generalizable to theoretical propositions and not to populations or universes. In this sense the case study, like an experiment doesn't represent a "sample" and the investigator's goals is to expand and generalize theories (analytical generalization) and not to enumerate frequencies (statistical generalizations). (Yin, 1994, p. 10)

This paper engages a dimension of action research that is referred to in the literature as critical or emancipatory; first coined by Habermas (1979). It is defined as a process that 'aims to connect the personal and political in collaborative research. Action aimed at transforming situations to overcome felt dissatisfactions, alienation, ideological distortion and injustices of oppression and domination' (Kemmis, 2001, p. 92). The focus of this form of research involves a group of individuals, or in this case a community of practitioners, working together to improve outcomes, self, work and the work setting. This study and the facilitation of the professional development program that is focused on, was a response to the frustration many teachers felt regarding the ineffectiveness of their school's language program to provide students with opportunities that they felt the efforts of both teachers and students warranted.

There are a number of respected cases combining collaborative action research and professional development which contribute to the literature (Allen and Calhoun, 1998, Burgess-Macey and Rose, 1997, Elliott, 1980). Overall, there is evidence to

suggest that involvement in the collaborative action research process assists teachers to be open to new ideas (Oja and Smulyan, 1989); enhances self-esteem and confidence levels of practitioners (Dadds, 1995); assists in bringing vision to reality (Elliott, 1980); creates a more collegial working environment (Selener, 1997); and adjusts the focus of discourse away from student problems to resources and accomplishments and leads to more learner-centered classrooms (Cochran-Smith and Lytle, 1992).

The action research methodology is not without its critics. Literature sometimes dismisses it as soft research for the very reason educationalists may value it – its adaptable design structure, the absence of a control to prevent unexpected variables and the fact that replication is not always possible. The practitioner knows that the classroom is a complex environment, the dynamics of which can never be completely controlled even from one day to the next let alone from one classroom to another; she/he is not looking for *one solution* but rather alternatives that could be employed to foster positive outcomes.

Another criticism is that the collaborative element of action research is restrictive in that it does not allow for an individualistic approach of teachers as researchers (Stenhouse, 1975, Whitehead, 1985, Cohen et al., 2007). On the contrary this researcher views the collaborative process not as a weakness but strength. Assuming that the overall objective is to ensure a positive change effort is implemented, the act of establishing common goals and working collectively to achieve them allows for individuals within the process to be supported. Certainly those sharing in the same experience can be more empathetic to the needs of a colleague facing difficulty, not to mention more resourceful in suggesting problem solving alternatives. As well a collective process involves a built

in accountability system, considering that challenges are expected, collaboration provides greater certainty that the process plays out to fruition rather than losing momentum before completion.

Habermas, in his book Communication and the Evolution of Society (1979) discusses validity claims that should be considered. He identifies *comprehensiveness*, *accuracy, moral and ethical appropriateness* and *sincerity* as elements that are essential in the reporting of a critical action research process. If the researcher addresses these claims and in addition considers triangulation of data through the use of varied tools then it may be difficult to argue inappropriateness in view of all the potential benefits. The key lies within the critical reflection.

2.2 Teacher Efficacy and Professional Development

Research into the correlation between perceived self efficacy and the successful performance of teachers in the classroom has commanded increasingly more attention over the last twenty years. Teachers reporting high efficacy can demonstrate a higher proclivity toward managing a dynamic learning environment within the classroom through use of participatory practices such as cooperative learning and take a more humanistic approach to classroom management (Ross, 1995, Tschannen-Moran, 1998). One study conducted in Venezuela with local teachers of English as a Second Language who were requested to apply a communicative language methodology in their classrooms found that teachers with high teacher efficacy toward the task also had previous international experience having either traveled or lived outside their homeland. In addition they possessed a higher level of English proficiency than teachers with a lower teacher efficacy (Chacon, 2005). Though professional development training was

implemented for the purpose of introducing the practitioners to the new methodology, the influence of the training seemed secondary to the existence of the teachers' previous experience and skills. In fact, Bandura (1997) does identify mastery experience, or being successful in the classroom, as one of the most powerful of the four sources of teacher efficacy as it directly impacts goal setting and effort expenditure. Numerous researchers have further confirmed that teachers with high performance expectations about their ability to teach, produce higher student achievement due to the fact that they try harder; stimulate student autonomy; attend to low ability needs and modify students' ability perceptions (Goddard, Hoy & Hoy,, 2004, Hickey et al., 2001, Ross & Cousins, 1993, Ross, J.A.,, 1992). Some researchers have gone as far to say that reform efforts will be unsuccessful without due consideration for the level of teacher efficacy among the reform agents (De Mesquita and Drake, 1994, Sarason, 1990)

Considering the great demand for good teachers worldwide more important than the possible correlation between high teacher efficacy and successful practice may be an understanding of how to ensure that teachers engage in a continuing process of development to heighten their teacher-efficacy. The problem in applying teacher efficacy research as regards professional development is that the research has often focused on the teacher's self reported beliefs regarding their skills and performance in the immediate future, rather than objectively assessing whether they are teaching more effectively (Wheatley, 2005).

A recent study conducted with a group of mathematic consultants who were both designing and teaching the curriculum rose to the challenge of this idea (Ross and Bruce, 2007). Their research proposed that "teacher change occurs through reflections on

experience and that self efficacy beliefs mediate the influence of self assessment on teacher practice" (p. 147). The study employed the theory of peer involvement in professional growth which structured how the curriculum consultants shared their professional experiences (Ross and Regan, 1993). The findings of the study suggested that in the right context, pedagogical practice can in fact be impacted.

> We found evidence of professional growth where certain conditions were met. The consultant experienced dissonance between current practice and a valued alternative; the teacher conceptualized how the alternative could be integrated into the core of his/her practice; the consultant experimented with the synthesis; the consultant consolidated the integration into routine operations (Ross and Bruce, 2007, p. 155).

The researchers introduced a form of professional self evaluation which they claimed, 1) set a standard definition of excellence among the teachers using it, 2) guided the teachers to select improvement goals, 3) provided a framework to facilitate communication between teaching peers and, 4) increased the influence of external change agents on practice. The study employed peer coaching, observation by external change agents and self-reflective, focused input on teaching strategies. There are two differences between the study referred to here and the Macao project. First, the teachers in the Macao study represent a marginalized population (non-native English speaking teachers of English) towards whom government policies and community sentiment has not always been supportive. The second is the fact that the Macao teachers were asked to set their own collective goals rather than abiding by criterion set by the external change agents. Though the context of the study above was specific to mathematics consultants, in fact

the process that was illustrated and which eventually led the participants' to that which Bandura (1997, p. 26) would have referred to as a 'mastery experience' (being successful in the classroom) using an alternative teaching strategy they may not have previously used, is the crux to the inquiry of the Macao research study as well. While it is true, the development must involve participants who themselves, to some extent, have a high efficacy for teaching in their subject area – not beginning teachers, but rather individuals who can draw from and reflect upon rich experience and a substantial knowledge base. As some researchers have pointed out; mastering a new teaching method requires substantial learning (Fullan & Miles,, 1992, Peterson, McCarthey & Elmos,, 1996). It seems that professional development as a process could be one means through which the school and the community ensure positive reform and change efforts.

An ongoing problem in regard to the relationship between teacher efficacy and professional development is that often an objective of the development training is to encourage teachers to change their practice – essentially teachers are expected to become agents of change for something they themselves have never experienced. Considering the participants in this study are language teachers, it is worth mentioning that language teachers are often hired as a direct result of having been good language students. They are individuals who, through their previous educational experience, acquired a level of proficiency in the target language they are now teaching. It is only logical to assume that these teachers will in fact replicate the methods and strategies that proved effective for them as students. While it is true all methods and strategies are effective to some degree with some students, as the world becomes more complex it isn't appropriate to rely on traditional methods and strategies alone. Complexities in content and cognition will

require teachers to continue evolving their practice over the duration of their careers. If practitioners can agree on the importance of attaining certain goals, they may then be more receptive to the introduction of strategies and tools to accomplish these goals.

Many successful teacher development projects share common key characteristics that are well documented in literature regarding school change (Darling-Hammond, 1996, Wood, 1992, Barth, 1990, Wasley, 1991, Lester and Onore, 1990, Livingston, 1992, Zemelman et al., 1993, McLaughlin and Talbert, 1993). Summations of the general characteristics that define effective programs are evident in the following table.

Table 7: Characteristics of Effective Professional Development Training Programs

Voluntary	While some administrators are hopeful that forced participation will push change efforts forward (based on the assumption that teachers will come to understand its value), this is rarely the case. There will be far les resistance and a much greater willingness to participate when teachers first determine the value and want to be part of the process.
Peer-led	A far healthier dynamic will permeate the professional development program if participants view the facilitator as a respected colleague. This has much more to do with style of communication and relationship rather than position or qualification.
Standards-oriented	It is the responsibility of professional developers to demonstrate and guide "good practice" in facilitation of their programs.
Curriculum centered	Theory underpins practice though it is applied theory that teachers consider most relevant. The training should be focused on the curriculum being taught; how to enhance its effectiveness and ensure student progress.
Lengthy	Changing classroom practice requires time; therefore it is best to allow teacher participants enough time to become confident with a new concept before they are expected to make a decision about applying it.
Active	This requires no further explanation, action denotes practice.
Practical	Specific ideas and examples of how to reorganize space, time, materials… should be strategies that teachers can envision replicating.
Open-ended	Teachers must ultimately determine what is best for them, though demonstration lessons, supportive communication … can certainly assist them in the decision making process.

Administratively supported	Despite the fact that many principals will verbalize the need and desire for change in schools, without their commitment and full support– the first sign of difficulty may thwart the ultimate success of any change effort. (If at all possible the principal and even parent representatives can take part in the training process).
Part of a larger change process	It is always best when a change effort permeates the organization as a whole rather than attempting to reform one area specifically.

For teachers to implement reforms, professional development appear to involve them "individually and collectively as shapers, promoters and well informed critics of reform" (Little, 1993, p. 130). The value of professional development for teachers is linked to the role it plays in the enhancement of student learning, as such, it is essential that the program be accompanied by a well-designed evaluation plan for determining its effectiveness. Moreover students should be viewed as individuals for whom limited English proficiency does not signify deficiency and for whom limited academic skills do not represent an incurable situation (Walqui, 1997).

2.3 The Importance of student motivation for language acquisition

It is generally accepted that achievement *in school* is largely associated with the two factors of ability and motivation. There exists now enough literature to safely accept the idea that all things being equal a student with higher levels of ability (both intelligence and aptitude) will tend to be more successful at learning a language than students less endowed. Similarly, other things being equal, a student with higher levels of motivation will perform better than students with lower levels. (Carroll, 1963, Bloom, 1976, Bruner, 1966, Glazer, 1976). Though the importance of these two factors is accepted the literature doesn't suggest that they are positively correlated. In fact one

ethnographic study of minority youth from families that had experienced forced repatriation to the United States suggests that lack of motivation may work to block or inhibit ability (Ogbu, 1992). He analyzed a group of young people who refused to become multilingual for fear that they would lose their identity. Zimmerman (1990), a leading exponent of the expanded self-regulation model explains how in social cognitive theory, people develop skills in regulating the motivational, affective, and social determinants of their intellectual functions as well as cognitive aspects. This requires bringing self-influence to bear on every aspect of the learning process. Other research specifically addresses the importance of motivation in the process of second language acquisition. As it has a direct influence over how often students use second language (L2) learning strategies, how much input they receive in the target language, how well they perform on curriculum related achievement tests, how high their overall proficiency progresses and how long they persevere and maintain L2 skills after the period of language study is over (Ely, 1986, Gardner, 1992, Scarcella, 1992).

Dörnyei's early research (1994a) specifically focused on understanding how motivation is assisted in the foreign language classroom due to the multifaceted role language plays. It is at the same time 1) a communication coding system that can be taught; 2) an integral part of the individual's identity involved in all mental activities and also; 3) the most important channel of social organization embedded in the culture of the community where it is used. In that human beings are social creatures; language competence transcends the limitation of an academic environment and the confines of classroom walls. Due to the fact that language acquisition encompasses such a wide spectrum of functions it is helpful to incorporate authentic content in the classroom. To

the extent that students perceive its value and take interest in it there are a variety of ways in which teachers can encourage motivation. In that he represents an individual who has successfully acquired English as a foreign language, Dörnyei's work holds a respected position in the field and among practitioners. In attempting to enhance the learning environment in the classroom he (Dörnyei, 2001) is especially interested in identifying how to engage and maintain task-based motivation and its direct implications to learning constructs within the classroom, as this context defines the environment in which a great deal of foreign language acquisition is introduced and practiced. 'Task focus allows researchers to breakdown complex and prolonged second language (L2) learning processes into discrete segments with well defined boundaries therefore creating researchable behavioral units' (Dörnyei, 2005, p. 80). An interest in motivational language learning tasks can be seen as the culmination of the situated approach in L2 motivation research, since L2 motivation can hardly be examined in a more situated manner than within a task-based framework (Dörnyei, 2002). Whereas Dörnyei takes a process-oriented approach to understanding L2 motivation the Socio-Educational model proposed by Robert Gardner (1985) offers a macro-perspective.

Robert Gardner's research is in the area of second and foreign language learning experiences. Himself a native English-speaking Canadian, a great deal of his work has focused on the second language learning experience within Canada and especially how motivation in the acquisition process can be sustained, not only within the confines of the learning environment of the classroom. He and his colleagues have proposed a paradigm for research entitled *The Socio-Educational Model of Second Language Acquisition* (Gardner, 2006, Gardner, 1985) which conceptualizes motivation as a complexity of

variables "the combination of effort plus desire to achieve the goal of learning the language plus favorable attitudes towards learning the language together with ability" (Gardner, 1985, p. 10). The model is comprised of eleven affective variables assessing six constructs in addition to an ability dimension. It has an assessment tool associated with it entitled the Attitude/Motivation Test Battery (AMTB) that provides reliable evaluation that its variables affect the language acquisition process (Clémont, 1985, Gardner & MacIntyre, 1993, Gardner, Masgoret, Tennant & Mihic 2004) therefore allowing for empirical research to be conducted. While there is some criticism as to the degree (Au, 1988) to which each of these constructs affects language acquisition, 'the strength of Gardner's model is that it explains how setting is related to proficiency' (Ellis, 1997, p. 238).

Table 8: Constructs measured by the AMTB

Constructs employed by the AMTB for achievement in language learning. (Not including Ability)	**Affective Variables:**
Learning Situation Attitudes	1. Teacher evaluation 2. Course evaluation
Integrativeness	1. Integrative Orientation 2. Attitudes Toward Target Group 3. Interest in a Foreign Language
Instrumentality	1. Instrumental Orientation
Motivation	1. Motivational Intensity 2. Desire to Learn the Language 3. Attitudes toward Learning the Language
Language Anxiety	1. Language Class Anxiety 2. Language Use Anxiety

A number of research studies has already been conducted using the model, yielding implications for testing a wide range of hypotheses from understanding why students drop out of language study if it is no longer required, to behavioral differences in the language class and influences for participating in bilingual programs (Gardner, 1985,

Clémont, 1977, Glicksman, 1982, Gardner, 1983, Tremblay and Gardner, 1995, Gardner, 2004), also it offers a promise for enhancing understanding of previous research studies. The main criticism of the AMTB was based on the fact that there seems to be some overlapping on some of the sub components and that there is no distinction between motivation and motivated behavior thus increasing the instrumental predictive validity (Dörnyei, 1994b)

While Dörnyei and Gardner may not entirely see eye-to-eye on all theoretical perspectives they have become leaders in the field of language acquisition and motivation and are united in advocating the separation of this area of motivation from the discussion of academic motivation in general. Justification for separating this subject from other academic subjects such as mathematics, science, social studies is based on the cultural and social implications involved with learning a foreign (second) language. In other academic subjects students are not required to accept or at least be willing to interact with a communication system that defines another culture or ethnic group; it is in this dimension that the difference lies.

All teachers share three common responsibilities; 1) to productively involve students in the work of class; 2) to guide them to move beyond simple participation to cognitive engagement which hopefully encourages them to think deeply about what they study and finally 3) to develop the traits of motivation to learn so that they can continue educating themselves for life (Blumenfeld et al., 1992). Historically, motivational research has typically overlooked negative motives and conceptualized motivation as a kind of inducement that is as a force whose strength ranges on a continuum from zero-to-strong. There have been intimations however in the existence of "specific external forces that

reduce or diminish the motivational basis of a behavioral intention or as an ongoing action" (Dörnyei, 2001, p. 143). An increasing number of language teachers and students communicate that they have experienced motivational influences which seem to de-energise action. A study was conducted among unsuccessful language learners in Hungary (Nikolav, 2001). Although the learners expressed positive attitudes toward knowing a foreign language[2] , their main reason for lack of success and indeed de-motivation concerned the classroom practices they had been exposed to. "The most problematic areas relate to classroom methodology in general, and assessment, focus on form and rote learning in particular" (p. 149). This study is interesting in that it illustrates the complexity which each 'language learner' perceives and attribute value to elements of the learning environment. A more recent study conducted by Ushioda (2003) explored whether different levels of motivation in a classroom group could play a role in affecting the classroom dynamic.

> Collective motivation can all too easily become collective demotivation, boredom or at the far end of the spectrum collective dissatisfaction or rebellion, often in the form of classroom counter-cultures defined by rejection of educational aims and values. (pp. 93-94)

While on the one hand motivation is individually determined, there seem to be aspects of the learning environment that could encourage or otherwise discourage learner motivation. It is in the best interest of practitioners to understand how to foster a learning environment that sustains this important momentum.

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[2] According to Gardner's Socio-Educational Model they would therefore be considered as integratively motivated.

This paper opened with the idea that the value of certain languages may be pinned to the hegemonic structure that presently defines the global economic environment; this potential relationship presents a double-edged blade in terms of understanding student motivation or lack thereof to learn a language. As regards the situation that exists within the Macao educational context, most students are not given the choice as to which language they would like to study. Rather, English is a requirement that has been assigned to them by the greater community in general and the Education authorities more specifically. While some students may indeed find value and seek opportunity in learning this required language, others may not and, there may be some who even consider it a threat to their own identity.

The concept of motivation is one that continues to intrigue both researchers and educational practitioners. While we don't have a concrete understanding of just how encompassing it is; there is no doubt that it is important and in the EFL classroom we would certainly be better off if we could understand how to encourage and sustain it among students. This study explores how classroom motivation can be observed at specific points in time and the ways in which teachers may benefit from having this knowledge. While future studies would certainly benefit from a more in depth understanding of how students within the EFL classroom are motivated, it was beyond the parameters of this study to measure this in detail, rather an attempt was made to determine, among the students indirectly involved in this study, to what degree they were able to exhibit behaviors that could be perceived as demonstrating interest for studying English.

2.4 Language Acquisition – in the classroom

The classroom provides both the environment in which a great deal of language learning around the world takes place; as well it provides the most convenient format for conducting language acquisition research though this is not to say that all questions have been answered by the enthusiastic volume of research conducted in this area over the past twenty years. To date a good portion of the research has been based on small-scale qualitative or quantitative investigation, case studies or short-term experiments that are descriptive in nature; these often analyze specific aspects of classroom life though as Long (1990) suggests, if the goal is to truly understand how language acquisition is achieved a great many more longitudinal studies are needed. A debate seems to have formed in the last few years as to whether language pedagogy should be more meaning oriented or more structure (form) oriented. Long (1985) argues that giving learners opportunities for meaningful communication in the classroom helps to develop communicative abilities no worse than those taught in the traditional form-focused approach. An experimental study conducted by Hammond (1988) comparing students studying Spanish as a second language at two universities seemed to confirm support for Long's posit. In his study eight experimental groups were taught via the 'natural approach' coined by Krashen and Terrel (1983)[3] and fifty-two control groups via a traditional approach which used a deductive method to teach grammar, were taught simultaneously. While the experimental groups did on average outperform the control groups slightly there were no cases in which an experimental group underperformed the control groups. Montgomery and Eisenstein (1985) propose that 'it is a combination of

[3] A methodological approach that will be introduced later in this section

form oriented and meaning orientated language teaching that is far more effective than form oriented teaching alone' (p. 329). They define form oriented as being more language centered in that the goal is to convey to all learners some aspect of phonology, lexes, grammar or discourse. This study compared the experience of two groups of working-class Hispanic students who were assessed in the areas of accent, grammar, vocabulary, fluency and comprehension. The first group, in addition to attending regular ESL classes - focused on enhancing grammatical accuracy, enrolled in an oral communication class which involved field trips to areas in which they were required to use English. The second attended ESL classes only. While both group improved on the pre and post test ratings it was the first group that improved significantly more in the areas of accent and grammar, as well they were overall more successful in passing the ESL course (86% pass rate as opposed to a 57% pass rate from the second group)

Prior to beginning this research, an initial pilot program was conducted with 49 local primary teachers of English representing 16 schools throughout Macao[4]. Observation of their respective classrooms revealed a number of interesting similarities.

1. The majority of language teachers in Chinese medium schools are permanent residents of Macao, either locally born or having emigrated from Mainland China. The exception to this would be temporary residents from the Philippines or India (in particular the province of Goa) who are employed to teach in English medium schools and a few teachers from western regions such as North America, Europe or Australia to teach in the international schools.

[4] The DSEJ sponsored 'Certificate in Language Teaching' conducted from Oct. 2002 – May 2003.

2. There is an overwhelming tendency among Chinese medium schools of Macao to utilize the grammar-translation method as the single-most preferred pedagogical approach to language class teaching.
3. Variance could be seen from school to school and even teacher to teacher, within a school, regarding the extent to which the target language was used in classroom. Though on average approximately 50% of English class periods were conducted in the native language.
4. The average primary English class size observed, consisted of 45 students and the average time allotted for each English lesson was 45 minutes.
5. The two most common forms of interaction in language classes take the form of a) class recitation – this could be a choral response to a question asked by the teacher (especially if it were of a format that had been often practiced) or recitation of a passage and b) individual response – referring to interaction that takes place between the teacher and one student and usually manifested in a question-and-response pattern initiated by the teacher.
6. The majority of primary class students remain in one classroom for the duration of the day, (often assigned to a seat within a row according to class-ranking) while subject teachers come to them during the assigned class period.

The grammar-translation method is a form-focused approach to language teaching which was first introduced in the late 19th Century to teach modern languages in Prussia. Its aim was to prepare students to read and write classical materials and to pass standardized examinations (Zimmerman, 1997). It was considered that the mental challenge of learning rather than actual use of a language was beneficial to learners. The methodology

involves detailed explanations of grammar often in the native language, memorization of grammar rules and bilingual vocabulary lists as well as the comprehension and translation of classical passages (Rivers, 1981).

Considering the fact that no teacher certification program recognized by the DSEJ in Macao offers training in Language pedagogy, it only stands to reason that many of the more than 1000 local teachers of English have learned how to teach through personal experience. They model the only method they are familiar with, the method that had been successfully used to teach them in the past. A conflict comes however, when the modern day demands of the community at large, parents and even students are not being met.

Schools in Europe and North America began moving away from the grammar-translation method as early as the 1920's when a movement for a more direct approach that focused on spoken language and phonetics with less reliance on analysis of grammatical rules was introduced. The updated method emphasized the imitation of patterns as well as advocated the introduction of vocabulary, relevant to common situations which could be practiced in the classroom (Fries, 1945, Palmer, 1940). Over time more and more focus was placed on maximizing interaction in the classroom and increasing the amount of time students had to engage in input and output of target language content that required negotiation of meaning.

The past 20 years however have seen the widespread emergence of three approaches that have had a great influence on the professional discourse of second language acquisition, namely 'The Natural Approach'(Krashen and Terrel, 1983), 'The Communicative Language Approach' (Brumfit, 1979), and 'The Whole Language

Approach' (Weaver, 1990). The first two of these have specifically influenced how ESL/EFL language programs are conceptualized, taught, and assessed. For the purpose of responding to the needs of the specific teaching and learning environment that exists within Macao 'The Whole Language Approach' will not be utilized as it is best applied to learning environments in which the target language represents a significant percentage of the communication in the greater community.

The Natural Approach introduced by Krashen and Terrel (1983) suggest that the following assumptions be adopted in the formation of relevant teaching materials and program design:

- Comprehension precedes a learner's production. Language production should be allowed to emerge in stages. It is essential that the course syllabus consists of communicative goals (1983, p. 20)
- Classroom activities aimed at acquisition must foster a lowering of the student's affective filter[5] (1983, p. 21)
- Language is acquired by being exposed to input that is a little beyond the student's current level of competence. (1983, p. 32)
- Language is best taught when it is being used to transmit messages, not when it is explicitly taught for conscious learning. (1983, p. 55)
- Krashen recommends narrow and extensive reading, focusing on a single topic or author to take advantage of natural repetition vocabulary and syntax as well as familiar context. Such an approach entails early, rather than late, specialization in the works of a single author in literature courses, and courses which focus on a single topic or series of related topics (as in immersion programs). Using narrow reading,

[5] The 5th hypothesis in Krashen's language acquisition theory that suggest learners who display affective variables such as low motivation, low self-esteem and debilitating anxiety can 'raise' the affective filter and form a 'mental block' that prevents comprehensible input from being used for acquisition, thus impeding language acquisition. (Though it should be noted that while positive affect is necessary, it is insufficient on its own to ensure acquisition)

acquirers can progress comfortably, gradually expanding the range of their reading.(1983, p. 137)

- New words should be introduced, then reused many times before the students are expected to use them in responses. Thus at any given time the comprehensible input serves to introduce new vocabulary, reuse vocabulary which has been previously introduced, and to give an opportunity for the students to produce vocabulary which has been used by the instructor so often that it has been acquired.(1983, p. 80)

The Communicative language approach which has developed through the efforts of numerous contributions (Rivers, 1983, Savignon, 1983, Papalia, 1976, Genessee, 1994) challenges more traditional approaches to the design of the learning environment and role of teacher and student in the learning process:

- Students achieve skill in using the language when their attention is focused on conveying and receiving authentic messages (of interest to both speaker and listener). Through interaction the students increase their language store as they listen or read authentic linguistic material, or even the output of their fellow students in discussions, skits, joint problem-solving tasks, or dialogue journals. (Rivers, 1983, p. 4)
- Teachers need to be flexible, possessing a repertoire of techniques they can employ as circumstances dictate, while keeping interaction central (interaction between teacher and student, student and student, student and authors, and student and the community who speak the language) (Rivers, 1983, p. 6).
- Real classroom interaction requires the teacher to step out of the limelight to cede a full role to the student in developing and carrying through activities, to accept all kinds of opinions, and be tolerant of errors the students make while attempting to communicate.(Rivers, 1983, p. 9)

- Language is primarily an interpersonal act and the principal mechanism used by human beings to socialize and accomplish goals. Language use consists of many abilities. The nature of the particular abilities needed depends on the role of the participant, the situation, and the goal of the interaction. Like the first language learned, second language learning begins with the needs and interests of the learner. (Savignon, 1983, p. 24)
- Reading activities should incorporate lively interaction of the readers (text-interpretation, expansion, discussion of alternative possibilities or outcomes). Often reading leads to creative production in speech or writing, as students are inspired to write stories, poems, plays, radio programs, film scenarios or documentaries based on the stories or plays they have been reading. (Rivers, 1983, p. 12)
- Writing is not necessarily a solitary activity on the part of the author but can be intensely interactive, involving the instructor, other students, and individuals outside of the formal classroom setting. Normally, we write to be read, and our writing improves as we respond to the reactions of others. Our desire to write also increases as others show interest in what we have written. (Russo, 1987, p. 10)
- An interactive classroom will include a great deal of listening to authentic materials, with no prohibition or discouragement of spoken response to student initiated contribution. The listening should be purposeful as students prepare to apply in some way what they have learned. (Rivers, 1983, p. 10)
- Assessment should be interactive and proficiency oriented rather than sterile or taxonomic. Students should be put in situations where they hear and react to real uses of language or where what they read is to be incorporated into some further language

> application activity. Multiple choice and fill in the blanks tests assess language not language usage. To the extent that it is possible, tests should replicate normal uses of language. (Genessee, 1994, p. 225)

Interestingly, the textbooks commonly used in schools throughout Macao are published in and for Hong Kong (most schools use the Longman series entitled 'Welcome') and were written to accommodate the Key Stages of learning that characterize the British National Curriculum. Despite the fact that the language approach is more interactive (e.g. each unit includes language tasks to be completed in groups, and focuses on authentic situations that allow practice and simulation of reality-based communication), teachers here still apply the grammar-translation method of instruction; in fact Macao schools have requested the publisher to produce a bilingual glossary to accompany each unit of study in the text as the requested customization for the Macao market.

As the process of L2 teaching has become more substantially researched and theorized it is increasingly recognized that teaching is a dynamic problem-solving enterprise (Woods, 1996, Freeman and Richards, 1996, Roberts, 1998)Teacher participants in the study were introduced to the assumptions listed here, not in a prescriptive way but rather as a means to open discussion about the possibility of testing previously untried (by them) methods of language instruction. The reason for utilizing more than one theoretical perspective was in the desire to allow the practitioners themselves to select approaches they felt would be relevant and manageable within their own teaching and learning context. It should also be noted that while the teachers' were informed of where their present methodological approach was placed within the context

of historical language pedagogy, they were not required to abandon it. Rather the professional development process allowed them to determine its value for themselves.

2.5 The Social Constructivist Perspective and language acquisition

It is difficult to separate academic and social constructs when examining learning within a school context. Perret-Clermont and colleagues suggest that 'cognitive processes and social relationships are inextricably interwoven in learning at school' (1991). It would be inexcusable to discuss the process of language acquisition without considering the social learning perspective as it is within a social context that a new language is introduced, mastered and applied. Although, Albert Bandura is the acknowledged spokesperson for this theory based on his exposition in *Social Foundations of Thought and Action* (1986) the contributions of Vygotsky (1986), and others should not be ignored, as the combination gives practitioners a great deal of guidance for practical application. The underpinning basis of social constructivist theories of learning, assume that children learn from hearing the thoughts and ideas of others and from articulating their own emerging understandings.

Bandura emphasized that learning occurs when students observe behaviors of competent models they can related to. Most often these models represent a peer or an individual who is slightly older. Adults do not necessarily comprise the best models, as their overall behavior is considered too different for most students to desire imitating. This does not mean that they have no influence, but consideration would have to be given to the adult's similarity to the student; a higher degree of similarity may in fact ensure the influence of the model. In the case of a language class this would suggest that a local

teacher who is proficient in the target language may have more credence as a model than a foreign, native speaking teacher in that the former would be recognized by the students as someone who is similar to them, though has successfully acquired the language. In one longitudinal study teacher support has shown to be more strongly related to Jr. High school students' motivational beliefs than to those of elementary school students. (Midgley, 1989)

An important aspect that determines whether an individual will learn successfully from observing the model is based on an individual's self-efficacy level. Self-efficacy as described earlier in this paper, differs from self-concept as it is not an overall but rather a specific indicator of how competent one feels in regard to a designated performance area. A student may have high efficacy for mathematical reasoning however a low self-efficacy for analyzing literature.

Efficacy is formed in part by memory of past experiences, the more positive the experiences the higher the self-efficacy level. It is partly due to verbal persuasion, for example having someone (especially someone respected) tell the individual that he/she is capable. As well, the emotions one feels in preparing to learn a task is an influencing factor. For example, low self-efficacy triggers anxiety, fear and restlessness prior to a task. Those who have high self-efficacy feel comfortable and excited to display what they've learned. Also important is observing the success and/or failure of those we identify with. In doing so, the learner enters into a vicarious learning experience.

Bandura noted that there are four activities which are at least partly influenced by an individual's self-efficacy level:

- The goals and activities one chooses to engage in

- The kind of thought process an individual uses, for example in determining thinking strategies for decision making.
- How persevering one is in striving to achieve a goal
- The emotional reactions one experiences in regard to certain tasks

Individuals who possess high self-efficacy over a variety of areas are more likely to participate in a number of activities and work toward accomplishing a number of different goals. They also tend to use higher level thought processes to solve complex problems (e.g. analysis, synthesis and evaluation levels of Bloom's Taxonomy). Individuals who rate their capabilities higher are more likely to work harder and longer to achieve goals.

A study done by Dale Schunk and Antoinette Hanson (1989) confirmed Bandura's findings that an individual's self-efficacy can be enhanced by watching a competent model. A group of 9-12 year old children who were achieving below the 35th percentile in mathematics viewed a video of similar aged children receiving mathematics instruction. The lesson taught how to use regrouping to complete subtraction problems – the children in the video then went on to successfully solve a number of problems. In comparison to a group who saw a video of a teacher solving problems and another who didn't view a model, those who saw the peer model had significantly higher self-efficacy ratings.

In this way the teacher is responsible for facilitating an environment in which students can have a chance to learn from each other tasks that can help their overall understanding. Traditional school constructs characterized by teachers' dominance, graded evaluations and a "host of institutional constraints that glorify content, product,

correctness and competitiveness, work to enhance extrinsic motivation and fail to bring the learner into a collaboration process of competence building." (Brown and Douglas, 1987, p. 388) If the teacher can create a learning environment in the classroom which is on one hand encouraging and supportive and on the other increases the opportunity for students in the language class to collaborate with peers to work through challenging tasks successfully there is a greater chance of enhancing the self efficacy of the students. As well, the act of successfully creating a learning environment which enhances student efficacy toward the subject could in fact raise teacher efficacy in this regard.

Vygotsky (1986) advocated group collaboration within the learning environment as a means to enhance cognitive growth. In other more complex thinking strategies than any could demonstrate individually. To have the best effect, groups should be fairly small (approx. 4-5 members) and as heterogeneous as possible. While students work together to accomplish shared goals, they also need to be individually accountable. Positive interdependence is another characteristic of the cooperative group, as the students are required to focus their effort on working together. Cooperative group tasks encourage; inquiry, perspective sharing and cooperation. Positive interdependence and promotive interactions are not likely to occur however, if students don't know how to effectively use face-to-face interactions. It is therefore imperative that before beginning students should be introduced to and have had opportunity to practice the skills of leadership, decision making, trust building, cooperation and conflict management.

A number of studies have indicated that working in cooperative groups has a more positive effect over student motivation, achievement and social relationships than individualistic or competitive (traditional) learning environments.

- Cooperative learning consistently produced higher self-efficacy scores than did competitive or individualistic learning conditions (Slavin, 1995)
- Students in cooperative groups felt strongly, that their group mates wanted them to come to school and encouraged them to work harder (Slavin, 1995)
- Students in groups spent more time on completing their tasks (Johnson and Johnson, 1995)
- Students who participated in cooperative learning groups tended to score up to 25% higher than the mean on achievement tests (e.g. students regularly participating in cooperative groups ranked in the 75th percentile)(Johnson et al., 1995).
- Students who had experienced working in cooperative groups did better at complex problem solving. (Johnson et al., 1995)
- Students who had experienced working in cooperative groups tend to have more diverse friendships (including students from a different race, ethnic group or social class) (Qin et al., 1995).
- Students who participated in cooperative groups were more likely to use these behaviors when working with new classmates; for example members of the group would support and encourage each other more than students who have only experienced individualistic or competitive learning.(Qin et al., 1995)

As well, there is consistent evidence from pre-school to graduate school that compared to competitive or individualistic learning experience the cooperative goal structure is more powerful in promoting intrinsic motivation and demonstrating less anxiety, more positive emotional levels and greater task involvement. (Johnson and Johnson, 1991, McGoarty, 1993)

The research findings seem to be in strong support of cooperative learning and providing students the opportunity and skills for working with each other. This paper encourages teachers to use small group tasks in the language classroom as it simulates a social context, however the author would like to add a few conditions that attribute to more successful group encounters, especially when working with students not accustomed to participating in a collaborative learning experience.

Due to the reality of population density many Asian schools will characteristically consist of large classes (a minimum of 45 students, even at the Kindergarten level) supervised by one teacher; it is only logical in this situation for teachers to employ a teacher-centered methodology in order to maintain control and provide a safe learning environment for all. While it is not within the spectrum of this study to argue the advantages or disadvantages of large class sizes, this illustration is only mentioned for the purpose of communicating the difficulties local Macao teachers face in regard to changing their practice to be more student-centered. While it would be great if class sizes were smaller; we must face the fact that this situation is not going to change in the near future so then it is best to determine a way to maximize effectiveness of large group teaching. In that interactive communication practice is an essential element to a successful language program, it is necessary that teachers understand how to organize, design, manage and evaluate collaborative group work within the classroom. First, the teacher should be clear in stating his/her objectives or purpose for the group task. There should be variations of the task assigned to different groups to ensure that groups do not automatically defer to the conclusions gathered by the group of fastest workers. Everyone in the group should be given a challenging role to play in the completion of the task. If

the roles are too easy, students will not feel a sense of accomplishment in the end. Tasks should be designed so that the cooperative efforts of the group are utilized to apply the skills, concepts or information they've previously learned - rather than a task which allows for everyone to complete their responsibility individually. Lastly, before beginning, the teacher needs to help the students understand how they will be evaluated. The best way is through introduction of assessment rubrics, so that students can be empowered and guided to achieve the grade they desire.

III METHODOLOGY

The four questions posed by this research study were addressed directly through classroom observations, reflective journals, a classroom motivational index, teacher participation surveys and teacher questionnaires all of which themselves indirectly informed the professional forums, the model class for teachers, the teachers' final reports and direction taken by the actual development program.

Questions	Parameters	Instruments
Q1	***What are the effects of an intensive professional development program on an EFL teacher's practice?***	Classroom Observation Records (COR)
Q2	***What are the effects of an intensive professional development program on an EFL teacher's feelings of professional efficacy?***	Customized Teacher Participation Survey (TPS) and questionnaire
Q3	***Can change in a teacher's practice affect student motivation?***	Classroom Motivation Index (CMI)
Q4	***Can change in a teacher's professional efficacy affect student motivation?***	Teacher's Professional Journal

1. ***What are the effects of an intensive professional development program on an EFL teacher's practice?***

Participating teachers opened their classroom to observations by colleagues as well as the facilitator, using an instrument that monitored patterns of communication utilized during the language class. The data recorded by the facilitator over three observations (at the beginning, middle and end of the program) were then converted into frequency and percentage charts that represent the direction, time and format of communication exchanged during the observed class period (the overall range of spoken and written communication formats fell within the following categories: Individual – IND,

Individual-Questioning –IND-Q, Recitation – REC, Interactive – INT and Presentation – PRE). Based upon the collective goals we were looking for a higher concentration of IND-Q, INT, and PRE. The patterns of change from the beginning to the end of the professional development could then be plotted.

2. ***What are the effects of an intensive professional development program on an EFL teacher's feelings of professional efficacy?***

A specially designed survey and questionnaire collected specific information from the teachers regarding their feelings of professional efficacy and ability to affect change in their practice. The survey included questions that required teachers to respond on a four-point Likert scale as well as open ended questions that invited further comments not directly addressed. The questionnaires addressed how teachers felt about the data that was collected via the class motivational index and whether or not this information was valuable to them. The responses for each tool were compiled and frequency recorded.

3. ***Can change in a teacher's practice affect student motivation?***

As well valuable feedback was collected from the language students themselves who completed a pre and post class motivational survey that was based on the Attitude/Motivational Test Battery (AMTB) of Gardner's (1985) Socio-Educational Model of 2nd Language Acquisition and which resulted in calculation of the Class Motivational Index (CMI); a score which represents the groups' cumulative motivation to learn language. The 12-point dichotomous survey measured each student's self reported levels of instrumentality, integrativeness and anxiety all of which impact the extent to which students desire to successfully acquire the language, the degree of effort they put into learning it and the dynamics of the learning environment (Gardner, 2006). Once

entered, the mean differences of CMI pre and post scores were then compared in SPSS using the Wilcoxon matched-pairs signed rank test. Mean differences were considered significant when the P-value was less than 0.05 which represents a 95% confidence level (Urdan, 2005). The Pearson coefficient (*r*), which expresses effect size was also calculated following Cohen's recommendation regarding the implication of effect size (0.01=small, 0.03=medium and 0.05=large) (Cohen, 1988). CMI scores can range from -21 to +21. Based on comments made by teachers in their reflective journals regarding the CMI for their respective class of students (*n* = 1158); the following seem to have implication on the dynamic teachers observed: a CMI score ≤ 5 indicated low motivation (students are passive, have little interaction, avoid being called upon…); a CMI score = 6 to 9 indicated average motivation (students wait to be called upon, appear uninterested, are quiet…); a CMI score = 10 – 13 indicated above average motivation (students display interest, show positive attitudes, are active…) and a CMI score ≥ 14 seemed to indicate high motivation (students are enthusiastic, take initiative, are interactive…).

4. ***Can change in a teacher's professional efficacy affect student motivation?***

In addition teachers maintained reflective professional journals which recorded what was happening in their classrooms and assisted to give them confidence in raising relevant topics for the discussion forums meant to address their concerns and/or showcase their successes. The flexible nature of the journal to document the teacher's experiences, feelings and memories is stressed by McKernan (1996). As well, it influenced the content for the model classroom (led by the facilitator) that gave teachers the opportunity to experience a supportive and interactive learning environment, similar to the one they were attempting to facilitate in their own classrooms. The reflective journals were

collected over the course of the 8 month program and coded according to common themes communicated by the teachers.

3.1 Sampling

The population consisted of thirty-five local English language teachers altogether including fourteen representing eight secondary schools and twenty-one representing seven primary schools throughout Macao who had registered for and successfully completed the professional development training program. These thirty-five teachers voluntarily gave signed authorization for their work, observation reports and reflective communication generated throughout the duration of the program, to be included in this research study; anonymity was assured for both themselves and their schools (See appendix A1). It should be noted that authorization was sought at the end of the program after the teachers had completed all their documents so as to ensure that they were not discretionary in their reporting only due to the fact that it would be publicly reported. All participants were local Macao residents of varying language ability, some experiencing a professional development program facilitated by native English speakers for the first time.

When teachers registered and began the program they understood that participation would involve evaluating their present practice in lieu of what was being discussed in workshops and making changes to improve their classroom teaching and learning environments throughout the course of the program. Upon registration their respective schools accepted that the course facilitator would, on pre-scheduled occasions, come into the school for the purpose of consulting with teacher participants, observing

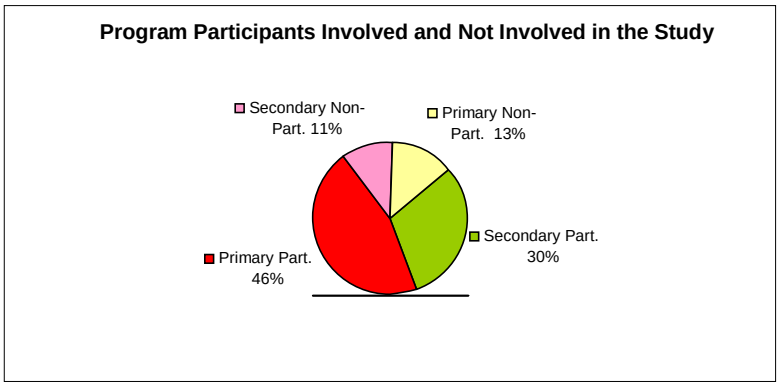
their respective classes[6] and if necessary team-teaching in the classroom with participating teachers for support. In that the students in the respective classrooms (totaling 1362[7]) would in fact be subject to changes made in the curriculum and learning environment each school was responsible for sending out a letter to parents whose students would be 'participating' in the change process, parents were informed that changes would be made and evaluated for their positive impact to the English language curriculum. Parents were encouraged to consult with classroom teachers if they had questions or concerns.

The thirty-five volunteer participants represent 76% of the total population of program attendees. It was essential to the researcher that teachers not feel coerced to participate in the research study against their will. So, as is recommended by Hitchcock and Hughes (1995) participating teachers were allowed the right to refuse to take part in the research. The ultimate purpose of this research was to explore the possibility of whether training involving a collaborative action research process could have an impact over practice. The researcher was hopeful that all teachers would volunteer though this was not the outcome received. Those eleven teachers who did not volunteer (5 from the Secondary section and 6 from the Primary section), were informally interviewed after the program and were forthcoming in explaining their decision not to participate - most of which fell within the following themes: a) too much pressure due to school

[6] It is essential to point out that for the purpose of this research the teacher self-selected one class of students that would be observed throughout the program – this was only to monitor development of a consistent population though the teacher applied his/her action research implementations in all classes he/she conducted at that particular grade level. These class populations were selected at the beginning of the program and teachers were encouraged to select the class population they perceived as 'most problematic'.

responsibilities at the end of the year to feel good about the work they had produced and as such they didn't want to include it; b) a few teachers expressed pressure from school colleagues to cease from implementing change actions in their classrooms – as colleagues felt threatened that positive results would mean the school administration would force them to change as well (the biggest challenge was that of creating an English immersion environment in the classroom in which all student-to-student, teacher–to-student and student–to-teacher communication was limited to English). As Russell so aptly pointed out; reflection serves little purpose if it doesn't involve in significant ways, change to teaching as well as development of thinking about the context in which teaching is conducted (Russell, 1993).

Figure 1: Percentile of Participants & Non-Participants in the Research Study



Three facilitators were involved in preparing and presenting the curriculum of this program; it should be noted that the researcher was the only full-time facilitator while the other two facilitators took part-time roles presenting in areas according to their specializations. The main facilitator had the responsibility to conduct all school-based classroom observations to ensure continuity, maintain contact with the administrations of

[7] This number includes all students in classes ranging from P1-F6, though later in the study the Class Motivational Index (CMI) results will only include 1158 of these due to the elimination of P1 and P2 class

all participating schools, oversee most of the discussions and collaborative meetings with teachers and conduct the Advanced English course for primary and secondary teachers respectively.

In addition to the researcher (also main facilitator), course facilitators were selected based on their ability to understand the local language and/or culture (of students and teachers; though English was in fact the linguistic medium used in the training as well as school-based interaction with teachers and their students), their qualification and previous experience with a range of schools, students and class sizes equivalent to those existing in Macao. It was essential that facilitators possess knowledge of and have empathy towards challenges faced by local English teachers in Macao schools.

3.2 Learning from experience

Many of the assumptions made in designing this professional development research study were based on the inaugural running of the professional development program one year earlier with a group of forty-eight primary teachers. In that the initial course also used action research as an integral component, the researcher was able to replicate positive elements and make adjustments in the design for the second course. The following descriptions track the evolution of the design[8]:

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results.

[8] Underlined components in the "Present Design" column highlight implemented changes to the design.

Table 9: Comparison of Program Characteristics between the Pilot and the Present Design

Pilot: Certificate in Language Teaching for Primary teachers	**Present Design: Certificate in Language Teaching for Primary & Secondary Teachers**
Primary teachers teaching at Macao schools were invited to register in teams of at least 5 from any one school	Primary *and Secondary* teachers at Macao schools were invited to register in teams of 3-5[9] from any one school
Teachers were observed twice in their classrooms, once at the beginning and one at the end of the program	*Three classroom observations were made* throughout the duration of the program, one at the beginning (Oct. – Dec.), in the middle (Jan. – March) and one at the end (April – June)
Teachers set three collaborative goals before the completion of the first module that everyone agreed to work on throughout the duration of the course: 1) to reduce student dependence on Chinese translation 2) to develop more activities requiring group interaction 3) to create new assessment tools for evaluating progress.	Teachers set three collaborative goals before the completion of the first module that everyone agreed to work on throughout the duration of the course: *1) to create an English immersion environment in class 2) to challenge students to solve problems and complete reality-based tasks in groups 3) to provide opportunities for public recognition of English achievement.*
The 150 hour course lasted for 6 months during which time teachers were expected to identify a problem and complete one action research cycle that required them to research more about that problem and how it is resolved in other contexts, plan an intervention, implement the plan, reflect upon and evaluate the effectiveness of the intervention and publicly present a report to colleagues with recommendations for further adjustments.	*The 200 hour* course lasted for *8 months* during which time teachers were expected to identify a problem and complete *at least* one action research cycle that required them to research more about that problem and how it is resolved in other contexts, plan an intervention, implement the plan, reflect upon and evaluate the effectiveness of the intervention and publicly present a report to colleagues with recommendations for further adjustments *together with an exhibition of student work.*
Teachers were asked to design one integrated unit of study consisting of at least 4 reality-based lesson plans focused on: 1) motivating 2) introducing new concepts 3) allowing for experimentation with the new concepts, and 4) applying what was learned in a meaningful way. (See Appendix A12)	Teachers were asked to design *three* integrated units of study consisting of at least 4 reality-based lesson plans focused on: 1) motivating 2) introducing new concepts 3) allowing for experimentation with the new concepts, and 4) applying what was learned in a meaningful way. (See Appendix A12)
Teachers were challenged to form and maintain a communicative dynamic in the classroom through use of cooperative learning strategies that required students to apply their developing language skills to complete tasks and problem solve in groups.	Teachers were challenged to form and maintain a communicative dynamic in the classroom through use of cooperative learning strategies that required students to apply their developing language skills to complete tasks and problem solve in groups.

[9] The overall number of teachers was reduced to allow for participation from smaller schools.

Pilot: Certificate in Language Teaching for Primary teachers	**Present Design: Certificate in Language Teaching for Primary & Secondary Teachers**
Teachers were required to consider how to develop assessment tools that evaluated students spoken, written, comprehension, thinking and responding capacities.	Teachers were required *to develop criteria rubrics* that evaluated students' capacity to speak, listen, write, read, think and question on specific language tasks presented them.
Teachers were required to keep weekly professional journals which allowed them to document reflections of their own practice.	Teachers were required to keep weekly professional journals which allowed them to document reflections of their own practice.
Teachers were encouraged to support each other, participate actively and offer critical feedback regarding the training program and whether or not it was meeting their expectations	Teachers were encouraged to support each other, participate actively and offer critical feedback regarding the training program and whether or not it was meeting their expectations
	Teachers completed an Advanced English course that modeled the communicative language methodology and provided them first-hand experience as a learner participant in a dynamic communicative environment.
Teachers collected pre and post program data regarding their students' motivation to learn English using the Class Motivational Index (CMI) – over a 3 month interim	Teachers collected pre and post program data regarding their students' motivation to learn English using the Class Motivational Index (CMI) – *over a 5-6 month interim.*

3.3 Research tools and assessment

An important consideration of this research was to gain an understanding of whether or not participation in a collaborative professional development program could assist teachers to make alterations in their practice and improve the learning environment for English language learners in their respective classrooms. It is for this reason that the researcher selected a collaborative-action research approach which combines the collection of both qualitative and quantitative data. Zuber-Skerritt (1996) defines collaborative action research as,

> … critical (and self-critical) collaborative inquiry by reflective practitioners being accountable and making results of their enquiry public, self-evaluating their

> practice and engaging in participatory problem solving and continuing professional development. (Zuber-Skerritt, 1996)

The term 'critical' is used to refer to a variant of emancipatory action research (Kemmis, 1997) in which the participants focus not only on individual classes but have a broader agenda to change language education and the language classroom environment overall. As explained by Cohen, Manion and Morrison in *Research Methods in Education* (2007) 'the researcher needs to take into account the interconnectedness of actions. In everyday life actions are interconnected and people make connections naturally' thus selected measurement tools that would give both holistic and in depth perspective of the context and participants being studied were utilized in designing the research. Patton recommends (1990) using a form of comparative analysis entitled triangulation as a means of strengthening the research design when the same phenomenon is being studied and of lessening the possibility of errors that are tied to a particular approach. Four data sources were analyzed in the process of addressing the research questions.

3.3.a The Teachers' Professional Journals (TPJ):

Maintaining a reflective teaching journal is beneficial for teachers to improve their practices, Richards and Ho (1998) suggest that through this medium teachers can clarify their thoughts and feelings about their teaching and learning environment. While this is not a form of classroom research as it involves neither testing correlations nor does it involve an outside observer entering the classroom dynamic. The teachers' journals are a useful source of information for participant observers to collect descriptive information in regard to classroom interactions (Gebhard and Oprandy, 1999). The teachers'

reflective journals provided a rich amount of data that could be categorized into three main themes related to the research questions:

- The teachers' feelings about the training (T.Fl.-Tr)
- The teachers' feelings about the teaching / learning environment within their classrooms (practice) and the greater school environment (T.Fl.-T/L)
- The teachers' feelings about their students and colleagues (T.Fl.-St/Clgs)

The constant-comparison method of analysis was used to examine the TPJ as it enabled the researcher to study emerging data for patterns related to the research questions, as recommended by Slavin and others (Slavin, 2007, Bogdan and Biklen, 2003) it is a comprehensive and manageable means through which ethnographic data can be understood. Though not all data classified in the journals will be included in this research, effort has been made to highlight the thoughts of the teachers that represent a consensus of understanding in relation to the general themes above. A consensus was determined when at least ten teachers had communicated a similar sentiment over a similar period of time (in such case a representative entry would be selected that expressed the idea clearly and in depth). As well, if there was a sentiment of concern, even if it came from only one teacher, it was recorded so as to ensure objectivity in the record. Teachers made entries in their journals usually at the beginning or ending of each week, though some teachers wrote more frequently, especially when there was intensity of feeling attributed to a particular event/occurrence.

As was mentioned earlier, interactive discussion was an essential ongoing element of this collaborative process though the researcher opted to focus on the teachers' individual written records as they gave a clear indication of each practitioner's

understanding and interpretation of ideas put forth in discussions. As well the researcher often served as advisor in the discussions which could be construed as a direct challenge to the internal validity if data from the discourse, were to be collected. By selecting to focus only on each individual practitioner's reflective communication a more accurate understanding of the teacher's true perspective could be better understood.

Journal entries have been coded as regards the three tier classification system previously mentioned and numerically assigned per case. Individual participants are identified according to case number (only the researcher has access to their true identity), and any excerpts included within this document were reviewed and accepted by the original author (the teacher) before being included herewith. The purpose of the review was to confirm understanding of the entry and also to allow teachers to edit the language (grammar, spelling, sentence structure only) so that they could feel confident in how they were represented.

3.3.b Classroom Observation Records (COR):

In addition to the teachers' journals, three classroom observations were conducted for each teacher, the same criteria was used for each classroom setting (see Appendix A9) so that data could be compiled to identify frequency, patterns and trends. The form created to record the classroom observations was designed to determine the teacher's progress in regard to the collective goals that all practitioners were working toward. It measured only objective variables such as time, frequency and form of communication observed. The standard format set for collecting information was introduced to all teachers at the onset of module one, before any observations were conducted. As well

the teachers were encouraged to use this format in their own peer observations conducted among team members. Only observations of the 35 teachers representing the voluntary participants (including willing P1 and P2 teachers) were included herewith.

The researcher scheduled all observation periods with the respective school administrations and while conducting an observation the researcher sat in the back of the classroom for the duration of the period being observed. In that many schools had never considered the concept of observation in classrooms it required a rather large amount of time to convince schools that it would be a valuable endeavor. The idea of video recording these sessions, or bringing unauthorized strangers into the classroom however, was not an option accepted by the majority of participating schools and therefore the data collected in this study is based on observations recorded by the researcher. The reader should note that during the observation process the researcher maintained both the role of non-participating observer and note taker – this was managed by the simplicity of the observations made and the use of an observation format that focused on measurable constructs alone (See appendix A9). If the teacher organized group tasks that involved students to interact with their group members, the researcher would circulate around the classroom with the teacher. After class the researcher spent time with the teacher privately to review the observations, discuss the class, provide input regarding strengths / weaknesses of the class and offer suggestions for improvement where warranted. The format allowed the researcher to monitor general frequencies and trends of behavior such as; time allotment of teacher and student directed communication; percentage of English communicated by both the teacher and students during allotted communication intervals and the form of communication required of students during the class period. The

observations served two purposes; 1) to monitor progress of each teacher as regards progress toward attaining the collective goals (accountability) and 2) to provide teachers with an objective means for assessing their time management/methodological strategies in class (a common tool for peer assessment). It should be noted that while it appears that spoken communication is highlighted here, in fact students were often given either reading or writing tasks to complete during the class period as well and these were fit into the time allotment of student directed communication for each class period observed. Students' oral communication fell within five different forms:

Individual (IND): Refers to individual utterances, usually in response to a question asked by the teacher while the remaining students are quietly listening.

Individual – Questioning (IND-Q): Refers to the directed inquiry of an individual toward the teacher or the class.

Recitation (REC): Refers to the spoken utterances of the class as one entity. This form was characteristically used when reading a passage aloud / responding to a question asked by the teacher (often for review) / repeating as a class (often for pronunciation – though it was impossible to discern any individual pronunciation error…)

Interactive (INT): Refers to a more natural exchange of dialogue or discussion among students and teacher involving active listening and response.

Presentation (PRE): Refers to a one way communication (often memorized / read) before an audience though some teachers requested students not to refer to notes and students in the audience to generate questions afterwards which ensured a limited amount of interactivity.

Teachers were encouraged to guide students to utilize INT / IND-Q and PRE as they required a more reality-based simulation of communication, encouraged independent thought and allowed students more practice using the language within class. The above data could be charted and graphs (time / percentage / form) were produced using mean and frequency calculations to observe overall development in the specified areas. It is important to note that observation for each teacher was recorded at the beginning, in the middle and at the end of the program though these represent individual points in time and are valuable ONLY when combined with the other data collected for this study. It is recommended (Van Maanen, 1988) that use of a diversity of method, comparison analysis and convergent validity checks enhances the credibility and quality of the findings. The observation reports were reviewed with each teacher respectively before the information graphs were included here.

3.3.c The Teachers' Participation Survey (TPS):

All teachers who consented to participate in the study completed a Teacher Participation Survey (TPS) anonymously. To ensure anonymity teachers were asked to seal the completed survey in an unmarked envelope and turn it in at the same time that they turned in their signed authorization form – the envelope and authorization form were separated into two piles and the envelopes were shuffled before any were opened, as such this instrument did not allow the researcher to distinguish between responses of primary or secondary teachers. This instrument was designed by the researcher and consisted of twenty statements to which teachers' indicated their degree of disagreement or agreement on a four-point Likert-type scale (Disagree (1), Somewhat Disagree (2), Somewhat Agree

(3), Agree (4)). The four-point Likert scale was employed as it forced the participants to determine their position concerning the program they had been involved in. Based on the teachers' intimate understanding of the program it was felt that the 'neutral' category, characteristic to the five-point scale, was not necessary. Support for the use of a four-point scale as 'exhibiting higher reliabilities than the five-category format, including an undecided' was iterated in a paper presented for the Australian Association for Research in Education (AARE) Annual Conference at Deakin University (Bourke, 1992). The statements addressed specific aspects of the training program, as well; teachers were invited to write additional comments if they felt inclined to do so.

As this was an instrument developed by the researcher the internal reliability was tested using Cronbach's Alpha Coefficient and as is recommended (Nunnaly, 1978) a minimum of 0.7 was expected to yield internal reliability. The Cronbach's Alpha is a method of measuring reliability by determining the extent to which there is consistency in responding among respondents to test items whose responses are a range of numbers that might reflect degree of agreement. In all instances, measures of reliability are in the form of a correlation coefficient that ranges from 0.00 to 0.99 (Girden, 2001). When participant responses were entered into SPSS the TPS revealed a Cronbach's Alpha Coefficient for internal consistency reliability of 0.86 which was well above the recommended minimum required level.

3.3.d The Class Motivational Index (CMI):

Strong societal influences (especially in the desire to internationalize) from parents, schools, teachers and friends, since Macao earned the rank of Special

Administrative Region (SAR) under the People's Republic of China in 1999, point to acquisition of English as a foreign language as one means through which students may be enabled to have greater future opportunities. Considering that successful acquisition of English will be individually determined based on ability, personal motivation and factors comprising the learning environment, it is valuable for teachers to understand as much as possible about these different dimensions in their students. As ability is rather difficult to distinguish and is linked in great part to inheritance this study focuses on the two constructs that are not innate; constructing an effective, supportive learning environment and the animation of the students' motivation. The teachers begin to manipulate the learning environment so as to provide students greater opportunities to experiment with and apply their developing English language skills as a major component of the work they undertake as action researchers, however, it is from the students themselves that teachers can begin to understand their (the students') level of interest in English class based on the extent they find purpose in studying it.

The twelve statements that comprise the dichotomous survey completed by the 1,158 students who were subject to changes in their English classroom environment due to their teacher's participation in the professional development program, resulted from a consultative discussion initially with primary teachers involved in the pilot study that had been conducted one year earlier and were further confirmed at the beginning of the program when the teachers in this study selected their collective goals. The teachers identified reasons why they felt students who found English interesting were happy to pursue it, as well the teachers identified reasons they believed caused some students to take no interest in and even avoid participating in classes. All the teacher comments were

recorded publicly and the list was refined into six general statements regarding the teachers' understanding of what animated students' interest in the subject and six regarding the reason for their disinterest. There is no doubt that the suggested points resulted from the teachers' past discussions with students, interpretive observation of behavior and recall of their own past experiences as students within the same system. Despite the fact that the teachers were not introduced to any particular model, in fact the CMI statements intuitively relate to the constructs which form The Socio-Educational Model of Second Language Acquisition especially in regard to integrativeness, instrumentality, and language anxiety all of which impact the extent to which students desire to successfully acquire the language and the degree of effort they put into learning it (Gardner, 2006).

After compiling the lists the researcher assigned rank value to the different statements based on the degree to which each represented interest or disinterest in the subject (see Appendix A4). In that there is a large difference between a group of students who are motivated because parents and friends tell them learning English is important to a group who have the volition to learn the language so that they can share their identity with others, likewise there is a big difference between a group who are temporarily overwhelmed with a heavy workload and feels that English learning isn't a priority to one who feel that learning English is a threat to their identity. Due to the changeable nature of motivation, the CMI was designed to give the practitioner a general indication of the level to which their class of students is motivated to succeed in which case the group dynamic should be positively affected (CMI score > 10), however, if the majority of students feel incapable of learning (CMI < 10) the inverse should be true.

The English language class represents only one subject area for schools that participated in this study (an English medium was not used in any other aspect of the students' educational program), the Class Motivational Index survey (CMI Questionaire), as it was called, was designed to provide an indication of the degree of students' affection or disaffection toward this subject at two points in time: one, before teachers began making changes to the instructional environment in the English language classroom and the second, at the end of the academic year during which students had experienced those changes for at least five months. In that this study has used a critical action research approach that examines change not only as functional and reflective but transformative, the fact is that English class students in Macao cannot be considered autonomous of influences from parents, society (as encouraged in the Governor's policy addresses 2000-2005), teachers, schools and peers. The CMI Questionaire design represents a culmination of the teachers' understanding of their students as well as their own intimate understanding of the local context that they and the students are members of.

Interest in studying English	**Disinterest in studying English**
Instrumental *A. My parents and friends tell me it is important.* *B. I don't want a bad grade.* *C. I can get a good job in the future.*	***Learning Attitudes*** *G. It takes too much work.* *H. Other school subjects are more important.* *I. I can live happily without it.*
Integrative *D. I can learn more information about the world.* *E. I can make new friends from different countries.* *F. I can share my ideas with more people.*	***Language Anxiety*** *J. I have no use for it in the future.* *K. I will always live in Macao so Chinese is more important.* *L. I am Chinese, English isn't my language.*

Students were requested to select only those statements which they identified as true to their own situation. A measurement of the mean percentages of student responses to the different statements allowed for teachers to understand differentiation in the class dynamic as a whole across two points in time.

The CMI Questionaire allows for individual student respondents to be measured based on two demographic variables grade level and class grouping (each class identified with one participating teacher in the study). Only CMI responses from primary three through form six were selected as it was felt that students below age nine may not be linguistically or developmentally mature enough to be able to reliably identify their reasons for being interested or not. Recognized instruments that measure goal motivation, such as those developed by the team of researchers measuring Patterns of Adaptive Learning (PALS) suggest that students below a primary four level should not be considered (Midgley et al., 1998), however, these instruments were developed in a North American context. Due to the fact that Asian students begin their academic / language studies earlier (formal Kindergarten education begins when the child is three and lasts for three years)[10] the average age of students in the second semester of Primary three level would be equal to that of a North American child studying in the Primary four level.

The CMI Survey data does provide relevant information for teachers in regard to their (the teachers') perception of student motivation – as they themselves indicate in the questionnaire giving feedback on CMI results (see appendix A5.1), though it is meant to

[10] Therefore students born between September and December of that academic year will not be able to attend kindergarten until the following academic year, so by the second semester of the year the majority of students in class have celebrated their 4th birthday.

be used in collaboration with classroom observation feedback and the teachers' own observations noted in professional journals.

This instrument represents the researcher's attempt to better inform language teachers about their classroom learning environment so that they can plan more effectively. The same students were surveyed at two points in time; once before any real change implementations were made and finally after having experienced changes in the learning environment for at least five months. As the CMI Survey required students to make dichotomous responses (yes / no) the overall results violate the "normal distribution" principle required when using a dependent t-test. In that most situations would warrant use of the dependent t-test to analyze pre and post test results on the same participants, the researcher had to select the best non-parametric equivalent, so the data were analyzed in SPSS using the Wilcoxon Signed-Rank test (Wilcoxon, 1945). The Wilcoxon Signed-rank test is based on differences between two scores resulting in either a positive or negative outcome that is then assigned a rank and converted into a value of *z*. Mean differences were considered significant when $p<.05$. Each class group was represented as a single case and due to the fact that each class had different number of students the percentage of class respondents for each statement was calculated to allow for comparison between class groups.

In addition Pearson's coefficient (*r)* was used to measure effect size of each response, statement by statement for both primary and secondary school classes. The Pearson's coefficient produces scores that fall between 0 (no effect) and +1 / -1 (perfect effect) and represent the magnitude of an observed effect. Field (2001) suggests that if any sample is considered representative of a population, then by knowing the effect size

of a sample a likely estimate could be made about the general population. The size of the effect in each case was determined by following Cohen's recommendations (1988, , 1992) regarding values that constitute a large or small effect, which have become widely accepted (.01 = small effect, .03 = medium effect, .05 = large effect).

The statements were presented to students bilingually[11] to eliminate linguistic misunderstanding. In that English was the original medium used to design the tool, it remained for clarification. Translation of the statements was completed using a double-check process in which one translator first translated the original English statements into Chinese after which another translator was then asked to translate the Chinese statements into English; the two translators then compared all the documents and minor revisions were made in the Chinese translation where necessary.

Teacher participants were provided with an orientation of how to administer the Class Motivation Survey. They were instructed to set aside a 10 minute time period, preferably at the beginning of class, in which to administer the survey instrument. Before handing out the survey there were told to clearly communicate the following to the students:

1. This exercise is *NOT A TEST* and will not be graded.
2. There are no, *right* or *wrong* responses – each person's opinions are valuable.
3. Students, please *DO NOT* write your names anywhere on the paper.
4. I (the teacher) am interested in the identification of all statements which you (students) honestly consider to be true based on your own situation. It is ok to leave some statements blank.

[11] Note: That while this case presents the survey in both English and Chinese, this instrument could be

5. When you (students) are finished, please turn your paper face down to indicate that it can be collected.

6. REPEAT it is important to know what *EACH INDIVIDUAL* considers true and again this is *A TEST*!

Teachers were not informed how to score the instrument or, that statements therein were assigned different values until both results were collected, so they wouldn't influence their students in any way. As mentioned previously, Primary 3 students and above were included based on the fact that a) at a P3 level all students are expected to independently read and understand the statements on the survey (using English, Chinese or both); b) students are mature enough to make responses that are true of how they feel rather than to please. This is certainly not to say that the six to seven year old students in Primary 1 and Primary 2 are incapable of independent thought, but when coupled with overall linguistic development there was a greater confidence level in the maturity of the P3 students to accomplish the task independently and understand what was being asked of them. The first set of survey responses were collected from November – December 2003 and the second from mid-May-June 2004 ensuring at least a 5 month interim between instruments in which teachers could implement their plans and make changes in the teaching and learning environment. Though many teaches were responsible for teaching a range of grade levels and/or classes at the same level, they were encouraged to select only one class that they considered problematic.

Once the pre and post class motivation survey responses were collected (completed surveys were given to the facilitator after completion) the responsible teacher

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customized to gather the same information from any linguistic population.

was then provided with the formula to calculate the CMI for each class group and did so under the supervision of the facilitator. Once complete, the mean differences of the CMI Pre and Post test scores were then compared in SPSS using the Wilcoxon matched-pairs signed rank test. Mean differences are considered significant when the P-value is less than 0.05 which represents a 95% confidence level (Urdan, 2005). The researcher was able to provide separate results for the Primary and Secondary classes for comparative purposes.

The four tools for data collection listed above were utilized to address the six sub-questions addressed in this study:

Research Question	**Data Collection Tools**
Q1: Do teachers consider the Professional Development program beneficial?	• TPJ • TPS
Q2: Are participating teachers' *willing to* or *capable of'* applying what they've learned in the training to their respective classrooms?	• COR • TPJ • TPS
Q3: As a result of the training what changes do *teachers report* / does the *facilitator observe* as having occurred in EFL classrooms?	• COR • TPJ
Q4: Have teachers' perceived an increase in their students' motivation overall (as a class rather than individually) to learn English as a result of change efforts implemented?	• TPJ • TPS • CMI
Q5: Do teachers feel they can influence their students' motivation to learn English?	• TPJ • TPS • CMI
Q6: Do teachers feel adequately supported throughout the program?	• TPS • TPJ

TPJ = Teacher's Reflective Journal; COR = Classroom Observation Report;
TPS = Teacher's Participation Survey; CMI = Classroom Motivational Index

3.4 Procedures

The participating teachers identified three collective goals that they felt strongly could address problems of motivation and performance in their respective classes and were committed to attaining:

1) Establishment of a supportive 100% English teaching and learning environment in class.

2) Implementation of group or cooperative learning strategies that require students to use their developing language skills to solve problems and complete reality-based tasks.

3) The provision of opportunities for students' developing language skills to be recognized by peers and the wider community (school or society).

Though there is no question that these goals were indeed influenced by the language acquisition information presented in module one, it is important to point out that the course content could have in fact taken a number of directions very different from those selected above. The course facilitators were prepared to listen and respond to areas in which the teacher participants were in fact committed to improving. In considering whether or not student motivation is enhanced through initiatives directly attributed to the teachers' involvement in this program it is necessary to consider that the teacher participants were motivated to initiate significant changes to improve the teaching and learning environment in their classrooms. Also worth mentioning is the fact that the goals selected were in no way easy choices, for the most part it meant that majority of the teachers were committed to making very large changes in areas that they had never before experienced, and would require a great deal of effort on their part. (e.g. Creating

an English immersion environment in class, allowing students to work independently in groups vs. teacher controlled interaction, preparing students to confidently present themselves in public situations using English).

Teachers were oriented to the process of collaborative action research and accepted the dual roles of active participant and researcher. The active participation meant that they were responsible for contributing to discussions, organizing demonstrations of new ideas and activities used with other teachers during sharing sessions (similar to a mock-class) and voicing out problems or concerns for the group to address. As researchers, they were responsible for planning how to implement changes in their respective classrooms (this was accomplished as a result of collective professional sharing sessions, consultation with facilitators and in some cases research of relevant literature), implementing and evaluating it.

3.5 Timeline

The program saw teachers through just about an entire academic year lasting from October 2003 – July 2004. For actual timetable of the program and modular contents the reader can refer to appendix (A1). Major benchmarks in the action research process were: 1) Teachers administered the Pre – CMI Survey tool to students (Nov. – Dec. 2003) 2)First classroom observations conducted (before Jan. 1, 2004). 3) Second classroom observations conducted & Implementation and evaluation of steps in the first research cycle (Jan – Mid-March 2004). 4) Third classroom observations conducted & Reflection and re-implementation of a new change cycle (Mid-March – May 2004) 5) Teachers administered Post CMI Survey tool to students (Mid-May-June 2004) 5) Project presentations & Team exhibition of student work (May-June 2004).

IV RESULTS

4.1 Reflective Professional Journals

The teachers' professional journals (TPJ) were a means for the researcher to gain insight into how teachers were feeling, what they considered important and how they understood the experience they were engaged in. It became one window through which the change process could be observed and monitored by not only the researcher but the teachers themselves.

Once the participants set their collaborative goals for the training, it became evident that while they may have committed themselves on an intellectual level the reality of what would be required to realize them had not initially resonated. A number of teachers from both primary and secondary levels communicated the challenges they were facing in some of their early journal entries. As TPJ excerpts are included in italics below, the reader should be aware that any text included within brackets indicates researcher additions for clarification purposes. The excerpts included within this study represent communication from the authorized participants only; in each case, approval was sought from the original author who may have made grammatical changes for fluency though the essential message of the text remained unaltered.

Though we [the teachers] have set the goals which seemed to be a big step forward at the time but practically applying them is another story… For example it is difficult to speak 100% English in class, my students can not follow me at the same pace that my colleagues' students [other English teachers at the school not involved in the program] are going through the unit and I'm worried they [my students] will not do well on the next test. ***Flgs-T/L (33)S11-21-03***[12]

[12] Each excerpt is coded according to topic, individual case number, followed by the letter S or P indicating Secondary or Primary and the date it was recorded in the TPJ. So according to the following code: Flgs-T/L(33)S11-21-03 the **S**econdary teacher identified as No. **33** wrote an entry about his/her feelings concerning **Teaching and Learning** on **Nov. 21, 2003**.

Using 100% English in class is very difficult, though I know it is beneficial to my students and they may become accustomed to a class in which no Chinese is allowed after some time… I try not to use Chinese though there are times when I must, even so it is improving gradually and the students are beginning to respond a bit more. ***Flgs-T/L(18)P11-28-03***

Teachers' practice at the onset of training was a determination of both expectations set by the school and imitation of the personal experiences each as learners of the language had previously faced. In most of the classrooms taught by teachers in the program grammar -translation was the preferred methodology in operation. As such, a percentage of Chinese spoken in class to introduce or explain new concepts was not only tolerated but expected, however; the extent to which it was used was determined by both the individual practitioner and the school environment. Some teachers intimated pressure by colleagues at the school to maintain the status quo.

Being a teacher there is so much work to do; I find it very difficult trying to figure out how to start making changes without making my students uncomfortable. Some of my colleagues at school were not very happy either when I told them that I was going to try and use English only in class… Everyone is afraid of more work. ***Flgs-Stu/Clgs (21)P12-12-03***

I'm glad that I'm not alone in my school [altogether there were 3 teachers participating in the program teaching other grade levels at the same school] though the other P3 teachers are pressuring me not to make changes. I know it's because everyone is afraid of more work, though it would be wrong of me to stop now. ***Flgs-Stu/Clgs(10)P12-12-03***

Oftentimes colleagues at the schools who were not a part of the program were a consistent challenge to the participants. In fact participants learned very early-on in their program that their goals were not going to be easily attained, in many ways the common obstacles many of them faced in the field actually worked to increase their unity and possibly provided the needed catalyst that allowed them to bond with each other as a supportive community of professionals. In addition, not everyone met with initial

success when they attempted to make changes in their classrooms, especially if they had not anticipated potential reactions and thus did not have a means to prevent the worse from occurring. There was a steep learning curve and it was obvious that for many of the participants it would not be an easy journey. Despite this the facilitators were impressed with the stamina that most demonstrated under very difficult conditions and thus provided support to both individuals as well as to the group as a whole.

Last week I had a terrible experience with a pair activity. I asked the students to revise the dictation passage with a partner and the class just became very loud and out of control, eventually I had to cut it short when I was hearing Chinese being spoken more than English. I don't know what to do; maybe secondary students are too old to change. ***Flgs-T/L(30)S12-19-03***

This week was terrible, my colleagues at school complained that my class noise was disturbing – I had tried group work… Also the principal has asked to see me; I think a few parents have expressed concern about their child's English grades. I'm very worried. ***Flgs-T/L(10)P12-12-03***

The facilitators provided as much support as possible to assist the teachers understand how to prevent problems from occurring; support took a variety of forms. In some cases this meant accompanying teachers into the classroom to engage in a team-teaching experience, with others joining teachers in meetings with parents or administrators for moral support and most frequently just providing an empathetic ear to the difficulties the teachers were experiencing. Another way of addressing this was to take a problem that teachers communicated in the discussion period and as a group, work-through as many alternative solutions as possible; it was the teachers themselves who offered the alternatives and they were encouraged to model how the different ideas might be applied in the classroom through use of mock-teaching in which they themselves took on the roles of teacher and/or students. The facilitators worked as guides in this process posing questions if it was felt that not all essential aspects of the problem

were considered. Later many of the teachers' journals reflected a strong feeling for this exercise.

I appreciate the sharing of my classmates [other teachers in a mock session] so much because the information I learn I could never have found in books. Honestly, many of the theories introduced in class I have already learnt which is why I appreciate so much when teachers share experiences which I'd never thought of before. ***Flgs-Tr(31)S12-05-03***

I appreciate working together with teachers from different schools. We share our difficulties and try to solve problems. We get new ideas and there are many ways we can improve ourselves. I find as well that when I give my students proper guidance they learn more and have more interest in what they are learning. ***Flgs-Tr(19)S02-06-04***

I think the experiences shared by my classmates [other teachers] can help my teaching a lot if I try to put them into practice in my lessons…Changes should be introduced in class for sure because the old ways of teaching aren't working effectively... ***Flgs-Tr(9)P01-16-04***

Again, possibly because there were common problems to overcome, the discussion forums became quickly focused on relevant issues and as such held the attention of the participants with little effort at all. In fact once the 'sharing' dynamic became an excepted characteristic of the program and teachers began sharing successes this grew to the point that problems were no longer highlighted but replaced by teachers' explaining how they achieved good experiences. By February, the facilitators could see a much more positive shift in the forums and in the teachers' conviction to succeed. The dynamic of the support system that had grown out of the emotions and experiences shared by the teachers now took on a life and indeed energy of its own. Teachers were showing confidence and looking at what they once considered obstacles as challenges or problems to be solved. One school team had even gathered enough courage to ask for a meeting with the English panel at their school for the purpose of explaining what changes were occurring in their classrooms.

Our team [there were 3 participating teachers at this school] spoke with the English panel and it was decided that we can continue experimenting with different methods only if our students are prepared for the scheduled assessments. I have confidence they will be – but the panel will be watching for mistakes so I'm a bit nervous. ***Flgs-Stu/Clgs(26)S02-06-04***

In addition to the discussion forums and the mock-sessions during workshops with program colleagues, teachers were also experiencing support from participating in the Advanced English module. The purpose of this module was to model how one could guide the language acquisition process in the classroom. It introduced teachers to aspects of curriculum that they may not have ever considered such as the introduction of literature, and the teaching of grammar and vocabulary through application tasks which challenged students to immediately put what they've learned into practice. Almost all the activities of this module involved the teachers in collaborative or problem-solving tasks. Due to the fact that the researcher was privy to difficulties faced by the teachers in their classes as a result of conducting the observations, the English module could work to directly model how to manage difficulties common in many classrooms such as the use of target language and how to move toward making the classroom student-centered rather than teacher-centered. Unfortunately due to scheduling conflicts[13] it was not possible to schedule both secondary and primary English modules simultaneously so in fact, primary teachers did not have access to this support until February on the schedule. The decision for beginning with the secondary group was made based on the fact that primary teachers had more access to the model being referred to considering that the pilot running of the program was conducted a year earlier and many of the participating schools had

[13] The researcher was the facilitator for this course and considering that the only remaining time period that teachers were available was on Saturday afternoons it was impossible to schedule both the primary and secondary sessions simultaneously.

colleagues who had completed that training. Though the 'Advanced English' component was not offered in the pilot at least participating teachers had begun to implement new strategies within the school.

During the advanced English module I was amazed at how easy it was to complete an entire piece of literature in English, when the facilitator introduced 'The Pearl' (by John Steinbeck) I immediately searched for a Chinese translation and was terrified that there was none in Macao but I finished and had fun reading it. I want my students to feel the same feeling. ***Flgs-Tr(29)S01-16-04***

As a student in our English module I can honestly say that I enjoyed the group activities and even those that were very challenging. I know my students could benefit from learning in this way. ***Flgs-Tr (25)S12-05-03***

One development that was a bonus for the facilitators had to do with the fact that the teachers involved in the program felt enhancement of their own English proficiency as a result of participating in the program.

During orientation I was very worried because my English was not fluent, even though there are many things I don't understand I'm beginning to find the course more interesting. I have tried using group activities with my students and they show initiative. Last week they asked me when I was going to do another. It is my hope that by the end of this course my students and I will show great improvement. ***Flgs-Tr (26)S01-09-04***

The more I use what I learn in the course I feel my own English is improving; I hope the same is true for my students. ***Flgs-T/L(5)P02-13-04***

By the time the primary teachers began their Advanced English module they had already experienced some success in their classrooms so the course itself worked to confirm what they were beginning to feel as a result of their own attempts to make their classrooms more student-centered. In addition it offered examples of relevant tasks, games and activities that stretched the participants' creative imagination.

Our Advanced English class lasted for 2.5 hours and I was so worried about being bored but every week I had so much fun I was surprised when the facilitator says that it was the end. Wow, building a supportive environment in the classroom makes a huge difference. ***Flgs-Tr(4)P02-27-04***

The English module we completed was great for giving us ideas and letting us feel how our students could feel. I have always been good at learning English but if my education had been more cooperative and dynamic like this, my language could be so much better than it is now. I loved the games and learned so much in a relaxing way, I want my classroom to be like that as well. ***Flgs-Tr(13)P04-02-04***

By mid-January teachers were expressing ways in which they were managing to battle what they considered the most difficult goal; that of attaining "100% English". While it represented their greatest challenge in fact teachers were very determined to achieve this as it meant they would stand out from the majority of local EFL teachers working in Macao. Discussion forums had by this time switched from predominately focusing on how to solve problems to a focus on narrating scenarios that were working. Through a combination of the supportive professional environment that they all shared, constant feedback and modeling through module workshops the teachers were creating and exploring new teaching approaches with more confidence and enthusiasm. Our class sessions were often going over just because everyone was so involved in what was occurring that we weren't watching the time.

I've tried to use less Chinese by bringing in pictures and using body language to explain the meaning of difficult English words. I know my students are struggling but at least they do seem focused and look as though they are trying to understand. ***Flgs-T/L(7)P01-16-04***

Equally exciting to watch was the confidence teachers were beginning to develop in facilitating group activities.

My students seem as though they enjoy English class a bit more since I started introducing more group activities even though it took me some time to structure these activities so that time wasn't wasted. ***Flgs-T/L(28)S02-27-04***

Shy students who were afraid of speaking up in front of the class are beginning to show more initiative working in small groups. I'm hoping that the team spirit can be strengthened and eventually they can overcome their fears altogether. I need to find a way to make sure that other groups listen to the presentations of their classmates with

respect… Overall I feel as though I'm just at the beginning, there's so much more to improve but I'm excited too. ***Flgs-Stu/Clgs(3)P02-27-04***

I have attempted to make some changes in my teaching and learning environment and I now understand that change is equal to learning and that it is a process that cannot occur over night. I am looking forward to replacing my old teaching methods with new and more effective ones … though I'm happy now, I can't wait to see how different my classroom will be at the end of the process. ***Flgs-T/L(32)S03-19-04***

Some teachers even ventured outside of the classroom with their class which was an unprecedented accomplishment. It was almost as though they had begun competing with each other in the areas of creativity and ingenuity, they were setting precedents and were beginning to be recognized for their efforts.

During my double English class today, I brought my class to the Macao Museum. The students were divided into eight teams of five and each team was given a list of 100 questions written in English. They had 45 minutes to go through the exhibit and collect as many answers as they could. It was great fun and the museum staff complimented the students on their use of English – they were so happy. ***Flgs-T/L(22)S02-20-04***

I found that when I choose topics that are relevant to my students' daily lives they are more active in responding and eager to share their experiences; otherwise the class is 'silent'. Last week I used my double period of English to have them make a salad. They had brought in ingredients from home so we had a variety of different vegetables etc. and each group made their own salad and then reported the process to the class – they seemed to really enjoy themselves and could even giggle at their mistakes… it was a good class. At the end the students ate what they produced and even invited their friends to come in with them at recess time. ***Flgs-T/L(7)P03-05-04***

I treasure the support I've received from other teachers and the facilitators throughout this course. In fact my colleagues at school are not happy that my students have become so enthusiastic about using English in the playground… they are afraid the Headmaster will force them to take this course; looking back to how I felt at the beginning of this course I was more like them. Now my teaching has changed and I've changed too. ***Flgs-T/L(14)P04-02-04***

I used to think of teaching as just my job. Since I was required to make some changes in my teaching such as speaking to my students only in English, they now speak English with me in the halls during break-time. I think teaching is a wonderful service and I now feel differently about my work… I feel I can help my students. ***Flgs-T/L(27)S04-09-04***

Though by the end of the course not all teachers actually achieved the 100% English environment in the classroom that was their goal, they had come closer and seemed to have grown in the process. From the tone of the TPJ entries it became evident that the teachers felt their students were more motivated as a result of the changes they spearheaded in the classroom. Most commented on the fact that it had become easier to see all the students participating in class and to them this was a great indication that they were on the way to ensuring a motivational classroom environment.

Earlier this week when I had hall duty during morning break I was speaking to a group of my students in English and their friends began to gather around. I was amazed to see that my students were willing to show their friends that they were not afraid to speak with me using English, outside of class… I would have never believed that it would be so easy to change my ways but I can certainly see that my students are different because of it, they are much more motivated to participate – I now look forward to class time. ***Flgs-T/L(6)P04-30-04***

I was so amazed with my students today, they worked so hard and their presentations were so creative. I would have never thought that different groups of students could read the same story and summarize it in different ways using drama. Everyone in class was so attentive, you could see the pride that students felt when their classmates clapped and cheered them on. ***Flgs-T/L(24)S04-30-04***

Though I was initially worried that presentations would take up too much time, I'm now sold. Some of my shyest students were getting appreciation for their performance and that really excited me… I believe anything is possible if you are willing to make an effort. ***Flgs-T/L(11)P05-07-04***

Now that the course is finished I feel like a new person. I've learned so many things and feel that now I'm a much more experienced teacher though I've been teaching for more than 12 years; my classroom is more relaxed, my students are more interested and I actually get energy from my work. ***Flgs-Tr(34)P05-14-04***

Based only on the TPJ entries, there does not seem to be a great difference between primary and secondary teachers. However, their similarities are probably highlighted to a greater degree than they should be due to the fact that the change required of both groups were equally significant in terms of the difficulty they faced in

accomplishing them and the extent to which unfamiliar strategies had to be employed in the process.

4.2 Classroom Observation Records

In addition to qualitatively looking at the classroom teaching and learning environment during observation times, the researcher was able to monitor patterns of behavior that were either supportive of the overall goals the respective teacher was working towards attaining or not. A complete table of the data over the three observations for each of the 35 participating teachers can be found in the appendices (A10 & A11).

It should be noted that the researcher maintained the role of non-participant observer and recorder during all the observation sessions. Each of the teachers identified only one of the classes they were teaching for the researcher to observe (it is from this same student population that the CMI Surveys were collected) in these classes the researcher maintained the status of non-participating observer. There were times however, when the researcher was asked by the teacher to assist in co-teaching a class for the purpose of helping the teacher to manage a change in strategy – these encounters took place in the other classes taught by the same teacher at the same grade level so as not to upset the non-participatory status of the researcher in the observation classes.

The illustrative representations below were generated using the mean percentage of all participants.

The first aspect to be analyzed was that of time distribution of teacher-generated and student-generated communication over a class period. Considering the fact that the

average Primary class met for one 45-minute period per day and consisted of approximately 42 students; and the average Secondary class met for 50 minutes and consisted of approximately 49 students - there was very little time for students to practice their developing skills when they were required to listen for more than 50% of the class period. Granted teachers did need to provide introductory information, explain expectations, manage discipline etc. However, during the first observation primary teachers were speaking for an average of 33 minutes or 73% of the class time (see Fig. 2); and secondary teachers were speaking for an average of 30 minutes or 60% of the class time. (see Fig. 3). It is possible that the time for teacher-directed communication was more extensive than usual due to the fact that they were being observed and as such they wanted to maintain greater control over the class however, this allotment seriously limited the time that students had to practice using the new language. Once this was pointed out to teachers and they were offered alternatives that may be applied to provide students more time to speak, the situation was greatly improved by the second and third observations in which the average teacher-directed communication 51% and 33% for primary and 50% and 36% for secondary were observed respectively.

Figure 2:Classroom Observation; Distribution of Student / Teacher Communication Time (Primary)

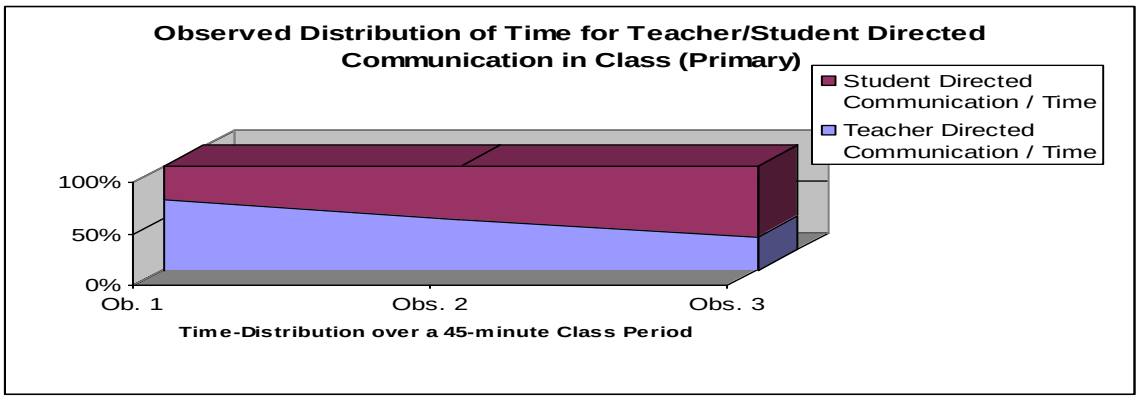
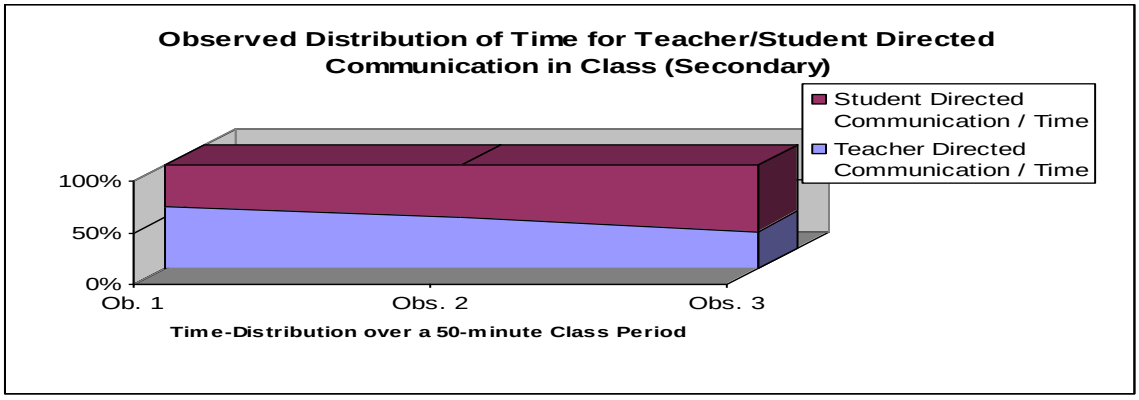


Figure 3: Classroom Observation; Distribution of Student / Teacher Communication Time (Secondary)



Over the course of the professional development training program both Primary and Secondary teachers made a great effort to create a student-centered learning environment in the classroom and we can see considerable improvement by the final observation as regards the amount of time students were allotted to practice what was being taught in class. In addition to the amount of time the teacher or student spoke during a class period it was relevant however, to identify what percentage of utterance was focused in the target language. The below figures map the teachers' overall effort to facilitate an enhanced English medium teaching and learning environment in the classroom. The first observation period revealed that time allotment, in and of itself, did not ensure the conveyance of quality communication; for example it was common practice for teachers to translate the English communicated in class, fearful that students may become frustrated and fall behind due to lack of understanding. While no one will argue that the teacher was acting according to what he/she considered the best of intentions there are obvious problems with this strategy 1) students seemed to focus attention only on the translation which was evidenced by students digressing into other

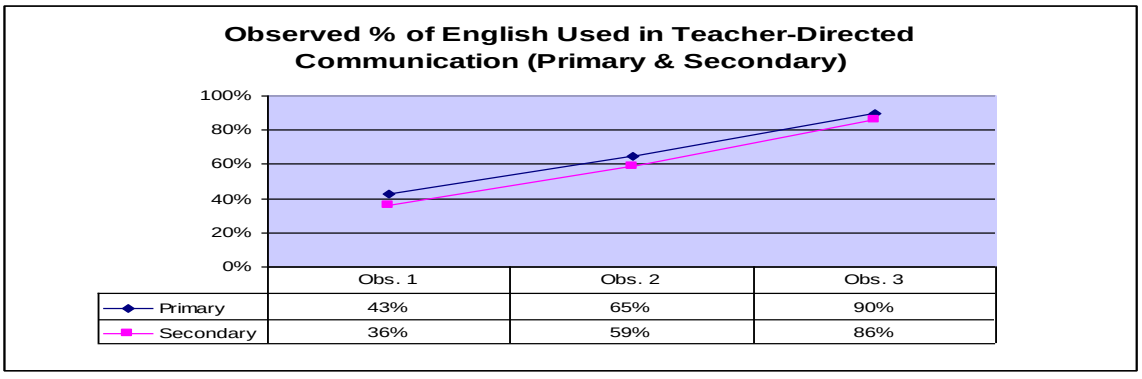
textbooks (opened in their desks) and passivity among students during the English portions whereas students would become more attentive and take notes during the translation and 2) the underlying message conveyed to the students seemed to be that the teacher didn't believe the students were capable of understanding communication in the target language alone.

Looking at Fig. 4 there doesn't appear to be a great difference between the percentage of teacher-directed English spoken in Primary and Secondary; though Primary teachers did tend to use English slightly more of the time. It is possible that the greater complexity of language required for use with secondary students was a source of greater concern to teachers therefore they not only translated but explained more using the students' native language.

Another noteworthy point is that, as teachers were encouraged to use the target language more both Primary and Secondary teachers increased their usage proportionally. One possible explanation for this could be the collaborative discussions that were an important aspect of the training and provided teachers with the support and courage to make changes in their classrooms knowing that others were doing the same. This particular area of change (creating an English-medium teaching and learning environment) presented great difficulty for the local teachers, in that their students had grown to expect translation; it required a great deal of commitment and stamina to make this adjustment and for many it required them to be faced with the worry and concern of not only students, parents, fellow colleagues but in at least five cases - school administrators. So that teachers received the support they needed the course facilitators advised them in class discussion as to how they may respond and on the five occasions in

which the teacher was asked to meet with the school administration the researcher as main facilitator attended the meeting with the teacher for support as requested. While there are obvious advantages to an immersion learning environment when acquiring a new language, many acknowledge the importance of it though when directly faced with challenges of creating such a situation; panic was often the first response. Students and parents were afraid that grades would be affected; other colleagues in the same school feared that changes implemented in one classroom would be mandated for them as well and administrators feared complaints from parents. Unfortunately the teacher received the direct impact of all concerned parties, for many teachers this was a great test – not only were they accepting a greater responsibility and workload to affect a change they were also faced with the challenge of having to defend their actions, on numerous occasions. It was essential that the teacher understood the purpose of the change so that he/she could justify it according to evidence of good practice. Despite the challenges, all the participating teachers had made adjustments in their classrooms and by the third observation they were using the target language for an average of 90% of the time in Primary and 86% of the time in Secondary.

Figure 4: Classroom Observation; Percentage of English Spoken During Teacher-Directed Communication (Primary & Secondary)



In that teachers were in fact the sole language model for many of the students it was an improvement that students were listening to a great deal more English by the end of the academic year, however, a change in the teachers percentage of English used in class was useful to students only when they themselves began to use more of the language in their own directed communication. If we look at the development of the students' use of English in class over the three observation periods we do not find the same upward developmental trend that we do in Fig. 4 with the teachers. In fact, upon initial viewing it appears that students in both primary and secondary went from close to 100% directed English communication in the first observation, by the second observation this percentage had regressed considerably and increased again in the final observation period.

The explanation of this could be due to the form of language teachers were expecting their students to use over the course of the training. At the beginning, student-directed communication was almost entirely generated in response to specific questions from the teacher[14] (IND) and class recitation (REC) both of which were guided by stringent language expectations and controlled by the teacher. For example, the teacher may write the following sentence structure on the board (in a P3 lesson that focused on foods common to students):

I am **is he/she** **Tom is** eating a **chocolate ice cream cone**. What **are you** eating?

Students did not diverge from the objective given them possibly for fear of humiliating themselves before their peers. The dynamic was quite different however when the teachers began to change expectations and requested students to use new forms

of communication. For example when students were asked to have a discussion in a group with other students there were no easy patterns to follow, in fact no one knew the underlying expectations for this request, so at the beginning the discussion would often digress into use of Chinese – probably causing the teacher to feel that he/she had lost control. The training addressed these real concerns of the teachers and offered suggestions for managing them through use of criterion-based rubrics with the students. Primary teachers set standards for the behavioral objectives they wished students to demonstrate when interacting in groups and Secondary teachers determined theirs.

While there were never any problems with teachers accepting suggestions and acting upon them, some comments written on the TPS seem to indicate that teachers felt they were being directed. This may be due to the fact that teachers had set their collaborative goals at the beginning of the training when their responsibilities were fewer and before they had a realistic idea of what would be required to successfully complete them. Once they realized that the facilitators were not going to let them abandon or amend them they became initially upset with the seemingly inflexible structure of the program. Another possibility is that teachers had become so accustomed to taking instructions that even in a collaborative environment; they still felt as though suggestions from the facilitators were mandates rather than alternatives to be considered. Despite the above; overall teachers did take the facilitator's suggestions to heart and by the third observation we see that student-directed communication had again increased despite the fact that they (the students) were being required to form more natural forms of language expression.

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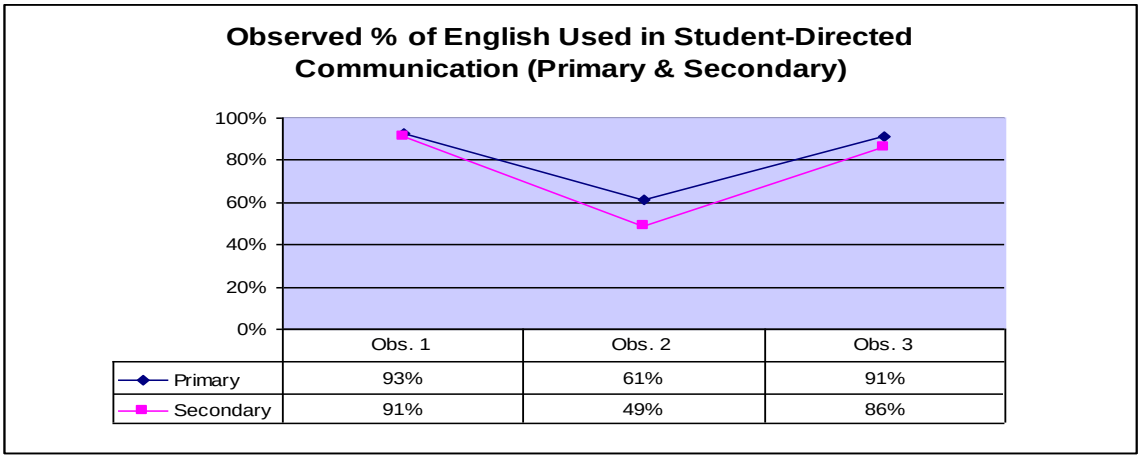
[14] This required them to use patterns and structural formats introduced by the teacher.

Figure 5: Classroom Observation; Percentage of English Spoken During Student-Directed Communication (Primary & Secondary)



When the researcher began making observations, student-directed communication took essentially two forms; either individuals were called upon to answer a teacher's question while the rest of the class listened (IND) or the class was asked to speak as a group (REC). Recitation was utilized for different purposes such as reading a set passage aloud, repeating after a recording (often for pronunciation practice - though it was impossible to discern any one individual's response) or answering a question asked by the teacher which often followed a number of practice questions addressed to individuals whereby the expected response format was understood by all.

Though the pattern of question and response is one that does have implications for natural communication; due to the fact that the teacher would introduce the expected format or structure desired for an accurate response – students were more focused on repeating the pattern correctly than they were challenged to listen attentively to form an appropriate response. Recitation as a form of communication was so far removed from a natural form that it did not prepare students for independent communication outside the parameters of the classroom. As well it was evident that approximately one fourth of the

students would confidently lead the class by prompting the response. There were times when students sitting in the back were focused on other tasks while the class was reciting[15].

Also worth noting was the fact that the teachers of both Primary and Secondary occupied one common position; in front the classroom at the whiteboard. The reality was that from their physical position, students occupying the back four rows could essentially carry on with a variety of tasks quietly outside the boundaries of the teacher's visual perception, provided that they didn't draw attention to themselves or become disruptive.

Appropriate forms of student-directed communication were the subject of numerous group discussions throughout the training as well as individual debriefing consultations with the researcher after class observations. Teachers unanimously defended their use of 'group-talk' (REC) pointing out that this was one of the few methods they could think of to engage all students in practice. The facilitators encouraged utilization of group interaction, inquiry and presentation forms as viable alternatives that could engage all students and assist in building confidence for natural communicative situations students may encounter outside of the classroom. The greatest fear teachers expressed was that of 'losing control' and with their large class sizes this was a valid concern.

In addition to the professional discussions the training program assisted teachers in three main ways to overcome their initial fear of creating opportunities for group interaction in the classroom. There were workshops in which teachers were given

[15] On a number of occasions in secondary classrooms the researcher witnessed students busily completing homework from other subjects quietly working from open textbooks in their desks while the class was engaged in recitation or group-speak exercises.

examples of appropriate group tasks that challenged students to collaborate and required teachers to model their own ideas of group tasks in mock sessions before their colleagues. As well, the Advanced English module that the teachers all participated in, not only demonstrated a variety of ways that group collaboration could be used but allowed teachers to understand the value of the task from the perspective of student. Finally, the researcher was, on occasion, requested to team-teach with the teacher in his/her classroom for the purpose of conducting an interactive task that had been designed by the teacher; thus allowing the teacher to see that it was possible to utilize the strategy with his/her students. It should be noted that these impromptu "team sessions" were separate events from scheduled classroom observations. As well they were conducted with other class groups the teacher was teaching at the same grade level so as not to allow for any more familiarity with the facilitator among the students in the observed classroom.

Teachers applied their understanding of interactive activities in designing their own lesson plans and the result was a myriad of experiments that provided a rich source of commentary in the teachers' reflective journals. The initial reaction of students seemed to be favorable, in that there was no longer a "back-row group" of students that were off task, but then came the challenge of selecting strategies that made it possible for teachers to control first the volume of communication (so that neighboring classes were not disturbed) and secondly the use of English. Teachers rose to this challenge in different ways; some created a competitive system of points and would reward on-task behavior, others initially gave all student-teams points and subtracted from them if the group demonstrated a non-desirable behavior; one primary teacher introduced the use of self-evaluation in which the group was responsible for evaluating their overall

performance upon completing a task. As a result of her enthusiasm in reporting its effectiveness a number of other teachers adopted this strategy as well.

All the strategies tried had varying degrees of success but created fodder for fantastic sharing in the professional discussion sessions during the training. As a few teachers began to share their own interpretations as to how the problem should be solved others were stimulated to action either using a technique described by a fellow colleague, creating a variation of their own or revising one that had already been tried.

This period of initiation, sharing, reflection and application over how to successfully implement group interaction, allowed for a stimulating dynamic among those teachers involved in the training. All the facilitators could see an enthusiasm that seemed to be self-generating from the teachers themselves as they fought to find a solution to a problem that was common to all; this was especially true towards the end of the program in which the majority of teachers were aware of how different their practice had become and how many hurdles they had leapt in a relatively short period of time.

It was also suggested that teachers assist students to inquire more (IND-Q); based on the idea that in generating questions students could gain independence in the learning process. Not all participating teachers saw value in this - as is evidenced from how often this form of student-directed communication was demonstrated in class; though some did try.

As well, teachers were encouraged to guide their students to present (PRE) as this would not only help them to direct communication to an audience but to feel the satisfaction of having their language accomplishments recognized by others. As we can see in Figures 6 and 7 by the third observation period, teachers at both Primary and

Secondary levels had eliminated the use of recitation (REC) and were utilizing more interactive (INT) and presentation (PRE) tasks with their students. There was an obvious increase in student participation when teachers introduced new forms of communication in their classrooms such that by the third observation the researcher was truly observing transformed teaching and learning environments in the respective classrooms.

Figure 6: Classroom Observation; Forms of Student-Directed Communication (Primary)

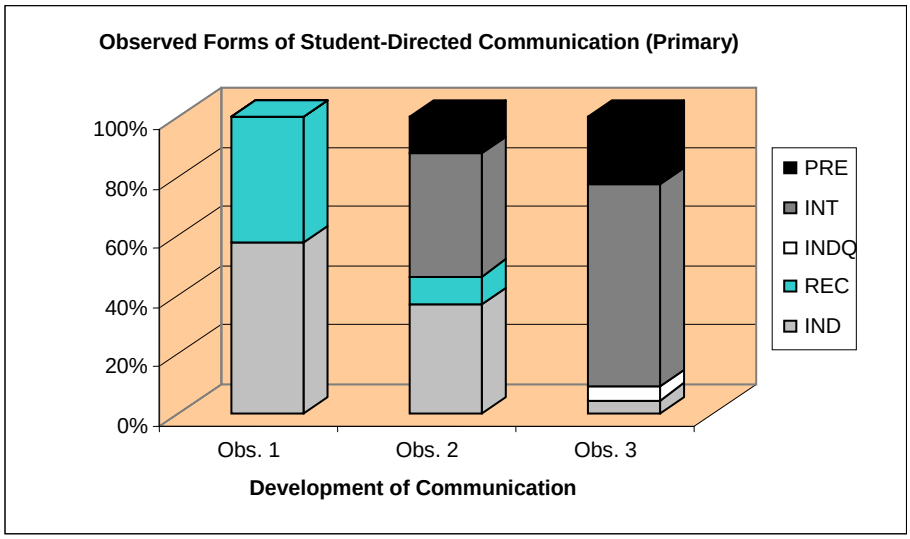
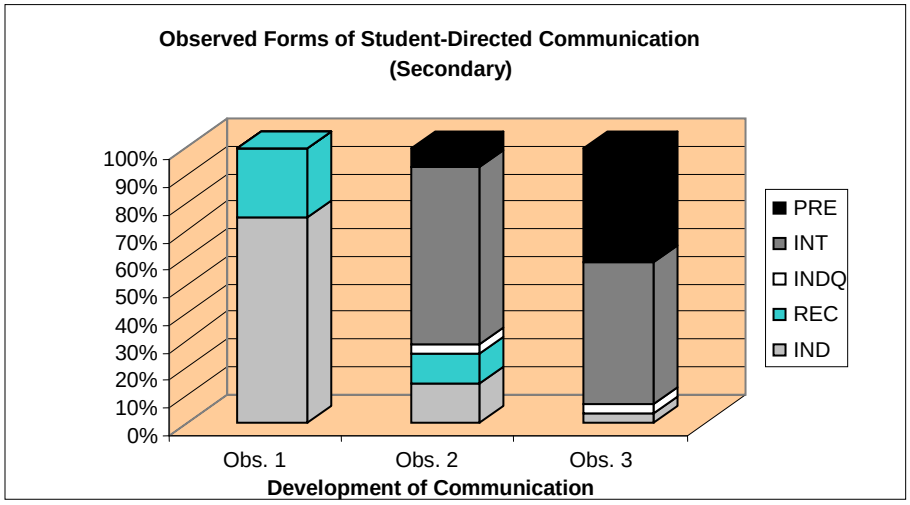


Figure 7: Classroom Observation; Forms of Student-Directed Communication (Secondary)



4.3 Survey of Participation

Even though responses in Teacher's Professional Journals (TPJ) highlighted the personal experiences of each participant in the program, the researcher wanted access to how all teachers felt in regard to specific aspects of the program. While many practitioners did comment on the program in their TPJ entries – these comments were not always related to specific issues that were relevant to the researcher and not all TPJ entries contained such information. The Teacher Participation Survey (TPS) was a tool that requested all teachers to identify their level of agreement or disagreement in regard to statements about the training program they were engaged in. The survey was designed to gather data in three main areas:

1. Did participants feel professionally empowered?

   Relevant statements: 2, 4, 10, 11, 15, 20

2. To what extent did participants feel the aims and objectives of the program were realized?

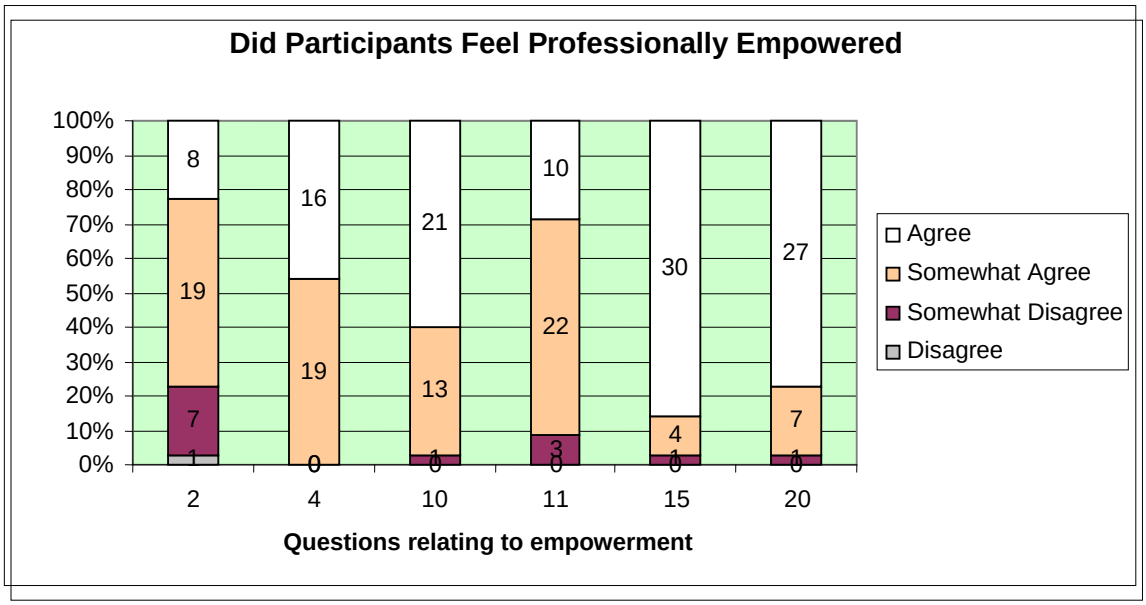
   Relevant statements: 1, 3, 5, 7, 13, 14, 16, 17, 18, 19

3. Did teachers' feel supported and valued throughout the program?

   Relevant statements: 6, 8, 9, 12

Before commenting on how the teachers responded to the survey, the researcher would like to discuss provisions that were taken to ensure its reliability. In fact all the teacher responses listed in *Table 4* below were entered into SPSS and internal consistency of the test items was analyzed using the Cronbach's Alpha Coefficient which yielded α 0.86 on a scale of 0.00 to 0.99.

Table 10: TPS Responses to questions regarding empowerment



The first aspect of the training that will be focused on is whether or not teachers felt professionally empowered by their participation in the training program[16]. It should be noted that teacher efficacy was an area the researcher was interested in enhancing among the teachers, though in the analysis it is not possible to discuss efficacy growth - consideration should be given to the fact that prior to involvement in the program many teachers had no feeling that their work could indeed impact on the overall teaching and learning environment in Macao, yet more than 70% of the course participants were willing for their efforts to be documented for this purpose. In looking at these statements through the lenses of the previous data gathered in this study we can see an overall growth in the teachers' expression of confidence as change agents. However in that there was no prelude to the expression of this level of confidence, this study is unable to provide a before and after differentiation. There were six statements within the survey

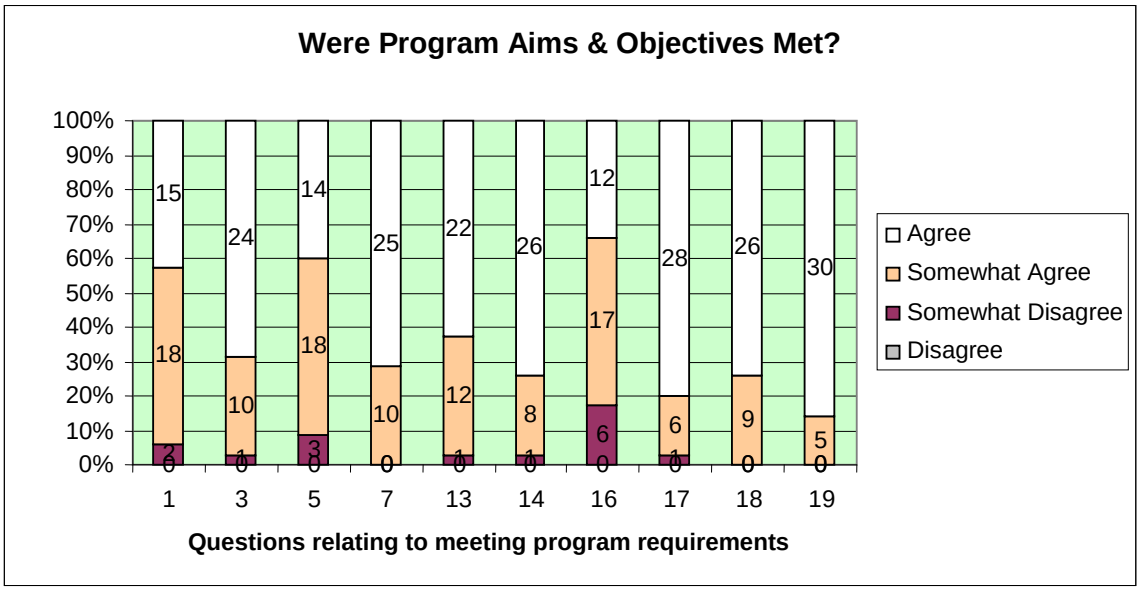
that addressed this area. The first is Statement 2; *I believe that I can play a part in changing English language instruction not only in my school but in Macao*. This was the only statement of the entire survey that revealed a response in the strongly **'disagree'** category (one teacher); also noteworthy was the fact that seven teachers indicated they **'somewhat disagreed'** with the statement. This should be balanced however, with the fact that nineteen and eight teachers selected the **'somewhat agree'** and **'agree'** responses respectively. Of all the statements this one received the strongest negative response (eight altogether) though it should be taken in lieu of the fact that there were indeed obstacles faced by teachers in the process of implementing actions within their classrooms. In TPJ responses teachers cited pressure from other school colleagues, administrators and parents to moderate their change processes; as such this response was understandable. The other five questions relevant to this category were, in comparison, overwhelmingly positive. Statement 4: *I am happy with the changes that have been made in my language classroom* revealed no negative responses rather there were 19 and 16 responses indicating that teachers **'somewhat agree'** and **'agree'** respectively. The researcher feels this is an extremely positive response rate assuming that teachers consider change synonymous to improvement - the inclination to change should be one that is valued and encouraged. Statement10: *I felt that working as an active member of the language team was helpful in my development as a teacher*. This statement refers to the individual's participation as a team member with other training participants within his/her school. In lieu of the difficulties initially expressed by many teachers at the onset of the program, this team involvement seems to have been an essential element in

[16] Readers should refer to Figure 8: Teacher Response to Participation Survey and Table 4: Frequency of

ensuring successful completion of the program. In fact often schools that did not have a 'team' of participants dropped out of the program prior to completion. To this response twenty-one of the thirty-five participants indicated strong **'agreement'**. Statement 11; *I felt my contribution to the project was important*. Despite the idea that humility is a valued characteristic in Asian culture, the fact that twenty-two and ten teachers responded positively that they **'somewhat agree'** and **'agree'** to this statement respectively was impressive. As Maslow suggests (1987) the aim to achieve self-actualization is an important goal, and one which can only be attained provided the individual feels secure respected and self assured. The responses to Statements 15: *I felt encouraged when students attempted to speak to me outside of class* and 20: *I would like to continue making changes in my language class* both yielded more than 75% of respondents indicating strong agreement. Such a strong response in both these areas seemed to imply that teachers felt that their accomplishments warranted continuation even after the completion of the training. Overall the six statements reveal levels of response that could not be attributed to mere chance.

Ranked Responses to the Participation Survey for a detailed view of the TPS data gathered.

Table 11: TPS Responses to questions regarding the Aims & Objectives of the program



The second area that was focused on referred to the extent to which participants felt the aims and objectives of the program were realized. Ten statements included in the survey were relevant to this area, and followed the aims and objectives of the training program previously illustrated in Chapter 1.2 of this document.

Statement 1: *The materials presented in the course were appropriate for use in the classroom*. The course materials were compiled to assist teachers obtain the knowledge, skills and resources needed to accomplish their goals successfully. It should be mentioned that course materials were in and of themselves a reference point for teachers to develop from and customize to suit their own specific needs. Though the facilitators, prior to the course, organized the general content direction that each taught module would address, the course materials themselves evolved to specifically address problems teachers expressed in their TPJ entries and course discussions as well as means to accomplish the collective goals set by the teachers at the beginning of the program. In addition to materials design based upon concerns identified by teachers, the researcher in

her capacity as classroom observer communicated concerns to the course facilitators that teachers may not have raised as problematic but nonetheless were indirectly addressed through the course both in the workshop sessions and the Advanced English Course. One such example of this was the overuse of 'class recitation' as a format teachers used to satisfy the objective of students speaking English in class. Despite the fact that students were indeed speaking English; based on observations of these sessions the researcher felt it was necessary to demonstrate alternative ways for teachers to fulfill the objective more effectively. The facilitators as a team were conscientious of not setting prescriptions for teachers; rather a variety of alternatives were presented for teachers to themselves experiment with and either adopt wholly or partially within their classrooms or not at all. There was however, no compromise when it came to maintaining the collective goals set at the beginning of the course. How they were to be achieved was determined by each teacher individually; some planned development in stages while others determined it better to make environmental changes immediately and resolve problems as they reared themselves – the goals though remained unchanged. The majority of teachers were in agreement that the course materials were appropriate for use in their classrooms with eighteen and fifteen teachers indicating they **'somewhat agree'** and **'agree'** respectively.

As regards Statement 3: *It is good that teachers of different schools are working together to change language teaching*, more than 70% of all the participating teachers communicated strong agreement. The fact that teachers from different schools were training together provided an opportunity for professional sharing that most teachers had never before experienced. One of the objectives of the course was to affect professional

discourse as regards EFL teaching in Macao, all schools in Macao were invited to participate with this aim in mind. Prior to this training most English language teachers had a very insular teaching experience; if there was any communication with colleagues it was among teachers working in the same department at the same school, often only within the same grade level. This opportunity to share with other professionals in different schools was one that resonated strongly with teachers – not only in this participation survey but as a common theme in the TPJ entries as well. Statement 5: *I think more teachers could benefit from the program* indirectly addressed whether teachers felt that the objectives set for the course were met to the extent that they could recommend it to others. While eighteen and fourteen teachers indicated that they **'somewhat agreed'** and **'agreed'** with this statement respectively, it is fair to say that any disagreement is most likely related to the fact that teachers felt burdened by spending an additional 4.5 hours per week in training not including time for their project preparation, all in addition to what they perceived as a hectic teaching schedule. In fact one of the teachers wrote a comment in confirmation of this interpretation on the survey: *Teachers in Macao have very heavy teaching loads (21 hours/week) and this is not even considering the time for lesson preparation, correcting student papers and administrative duties set by the school. If this program could be somehow offered during the day it would be better- though I know it would be difficult!*

Yet another teacher seemed to indicate that schools, while initially supportive of the program were not entirely sympathetic that individuals from the school were not always available for school organized events:

My school had asked me to register for this training program however, whenever there are extracurricular school events such as the planning of the 75th anniversary celebration – I am told that school should take priority over this program. As a result I was not able to attend many of the Module 3 workshop sessions.

In response to Statement 7: *I feel that making changes is necessary but not easy* there were no disagreements, in fact twenty-five teachers expressed strong **'agreement'.** The aim for teachers to see that through working collaboratively changes could be made in the teaching and learning environment was central to both the program and this research. Teachers approached the change process in different ways but nonetheless all understood its value. In response to the request for additional comments at the end of this survey a number of teachers commented on their own experience with administering a change process:

"Participating in this action plan, I have learned more about teaching methodology and especially group-work which has become the newest aspect of my classroom teaching and I think that it is very useful for me."

"After the project, I see improvement in my teaching methods. Some of my students speak English with me in and out of the lesson and that makes me so excited. It is true, thank you for this opportunity!"

"I feel I've benefited a lot from the course and did make some changes to my lesson plans as well. However, I find that students tend to be idle when they are asked to do group work and sometimes it turns out to be only one or two students who actually complete the work."[17]

There are six other statements that refer to course aims and objectives and are related to creating a teaching and learning environment that facilitates the language acquisition process in the classroom. Based on experience gleaned from conducting a

[17] With this comment it appears that the teacher was not yet confident, even at the end of the program, to manage group interaction within the classroom environment. Each teacher experienced different learning

trial running of this course the researcher was cognizant of the fact that many local teachers do not have sufficient tools or resources to draw from in regard to how they may guide and manage the process of language acquisition nor may they consider the design of these within their realm of responsibility. An important aspect of the course design was to equip teachers in this regard so they were introduced to aspects of the Communicative Language Teaching methodology. Statements 13: *I felt a great responsibility to assist in creating a communicative environment in my class;* and 14: *I felt that teaching the students to listen and respect each other was as important as developing their speech* revealed a mean response of 68% of teachers expressing strong **'agreement'**. This represents a significant difference from the average dynamic that was observed in classes at the onset of the program and one that deserves acknowledgement. Both statements have to do with creating a communicative environment in class. This is an especially important component for ensuring that students receive adequate opportunity to practice their budding language skills in a format that imitates reality to the extent that it is possible. Communicative, by its very nature suggests interactivity; as such, the value of speaking is greatly enhanced by one's ability to listen attentively so that an appropriate response can be generated. Students who are not able to respect the ideas and spoken utterances of their peers are not engaging in authentic communication. The fact that such as large percentage of teachers understood the value of this and expressed strong agreement was essential to any success they achieved in their classrooms. While one may argue that the teachers may have realized this before the training began; the researcher would like to emphasize that knowledge doesn't

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curves and challenges with different aspects of the program which hopefully provided them with enough

necessarily guarantee behavior. The behavior that was observed in teachers' classrooms at the onset of the training certainly was no indication that they were able to apply the knowledge if indeed they had it. By the end of the program however; the majority of participating teachers both verbalized and demonstrated that they valued this construct.

As well when consideration is given to the greatest difficulty teachers faced in the course of this training which had to do with creating an English only environment in the class, responses to the likes of Statements 16: *I feel that students are capable of learning a language without translation* and 17: *I feel the importance of using the target language (English) in my classroom* were particularly important. There were seventeen and twelve teachers who indicated they **'somewhat agreed'** and **'agreed'** respectively with statement 16. Based on classroom observations and TPJ entries, there is no doubt that this would have been a much smaller number had the teachers been asked at the beginning of the program. As well when we look at the response to statement 17 indicating a strong agreement from twenty-eight of the teachers there is no doubt that as time goes on and teachers continue to gather more experience creating an English immersion environment in their classrooms their dependency on translation will decrease and even disappear over time.

Statements 18: *I feel that it is important for students to have opportunity to communicate individually, in pairs and in small groups to solve problems or complete language tasks* and 19: *I feel it is important for students' speaking, listening, reading, writing, questioning and thinking skills to develop simultaneously* indirectly indicate that teachers believe themselves capable of designing appropriate language tasks and

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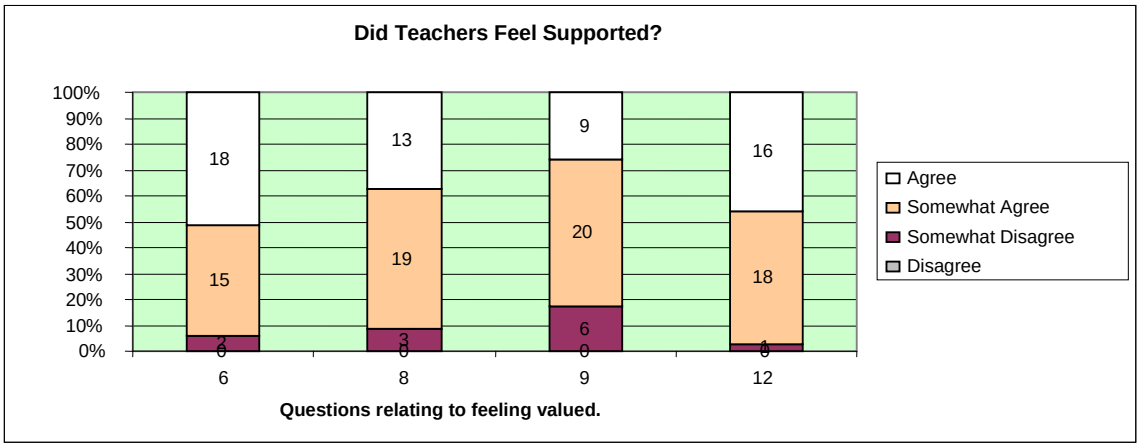
experience to continue working on improving these areas still further.

assignments to supplement the traditional textbook approach to language learning. In response to these statements no teachers expressed disagreement, in fact the majority; twenty-six for Statement 18 and thirty for Statement 19 indicated strong agreement. One important aim of the course was to empower teachers to simulate an environment in the classroom that modeled a realistic language environment to the extent that it was possible. The discussions at the beginning of the course revealed that for most teachers "curriculum" was determined by the textbook used; so when teachers agree to statements such as 18 and 19 which require not only an understanding of the language acquisition process but suggest ways in which they can control how students become familiar with it – this is a development that is moving in a good direction.

Table 12: TPS Responses to questions related to feeling supported



The final category of statements refers to whether teachers felt supported and valued throughout the program; there are four statements that support this category. While we know that teachers were very much influenced and inspired by each other throughout the program the inverse of this influence would have no doubt been felt by the teachers themselves when they received appreciation and recognition for the ideas they were suggesting. Statement 6: *It was helpful to see what other teachers were doing*

suggests that peer recognition was seen as important or valued. There were fifteen and eighteen teachers who expressed that they **'somewhat agreed'** and **'agreed'** with this statement respectively. Numerous remarks in the TPJ entries indicated that teacher or peer sharing was an important source of inspiration in the course; if this is true, then it would be possible to conceive that in fact recognition by others can perhaps enhance one's feeling of being valued.

Statement 8: *I felt respected as an equal partner in the design and execution of the language training project* refers to the teacher's response as a member of an action research project team. All teachers worked in action research teams (of 4-5 teachers), usually determined by the fact that they were all working at the same school or at least neighboring schools with close geographic and demographic characteristics; in other words, schools that maintained close proximity and shared students of similar socio-economic background. Responses to this statement consist of nineteen teachers indicating they **'somewhat agree'** and thirteen teachers indicating they strongly **'agree'** could refer more to the team dynamic they experienced than about their feelings in regard to participating in the training program overall. It should be taken into consideration that many teams experienced active opposition from colleagues not involved in the training program and/or school administrators. Statement 9: *I felt that my opinions / suggestions / contributions were respected* refers to the teachers' feelings about their participation in the program and more specifically to the form of feedback and response they experienced from the facilitators as well as other participating colleagues. The responses to this question were rather varied with six teachers indicating they **'somewhat disagree',** twenty teachers indicating they **'somewhat agree'** and nine indicating they strongly

'agree'. If we refer back to some of the points raised in the TPJ there may be evidence in support of the idea that teachers may indeed have understood the *uncompromising* position of the course facilitators in regard the collective goals set, as being disrespectful or unconcerned of the challenges they faced. Considering the fact that many of the participating teachers referred to their respective school faculties as authoritarian bodies that were not open to suggestions from teachers who were not participating members of the "English panel;" the insistence on the part of the course facilitators that none of the collective goals, set at the beginning of the course, be abandoned may have been viewed as similar to the existing situation at their school. Although one way to look at the responses is to say that more than 80% of the teachers opted to respond more positively, the greater proportion of them obviously had experienced some conflicting sentiments in regard to this aspect of their participation. When juxtaposed with the responses to Statement 12: *I felt my participation was valued* in which only one participant selected **'somewhat disagree'** and the remaining thirty-four selected to respond more positively with eighteen selecting **'somewhat agree'** and sixteen selecting **'agree'**, it seems as though in consideration of the whole program teachers were able to receive sufficient support and acknowledgement for their participation. There is no doubt that their feelings of being valued could have come from different sources; possibly the support and empathy of facilitators, their fellow participating colleagues or maybe even the changed behavior of their students. A comment that one teacher wrote *"I'm very satisfied with what I have done in the project"* is hopefully indicative of the sentiments felt by the majority of the participants.

Figure 8: Teacher Response to Participation Survey

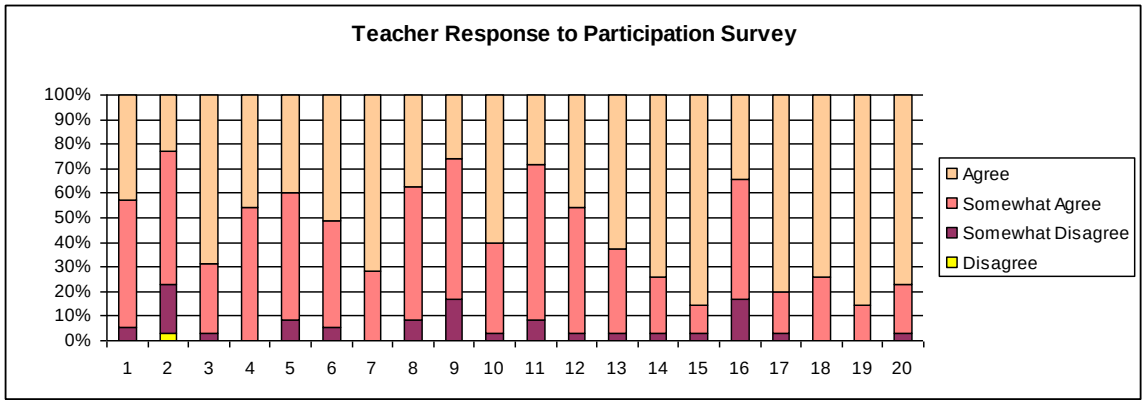


Table 13: Frequency of Ranked Response to the Participation Survey

	Disagree	Somewhat Disagree	Somewhat Agree	Agree
1. The materials presented in the course were appropriate for use in my classroom.	0	2	18	15
2. I believe that I can play a part in changing English language instruction not only in my school but in Macao.	1	7	19	8
3. I think that it is good that teachers from different schools are working together to change language teaching.	0	1	10	24
4. I am happy with the changes that have been made in my language classroom.	0	0	19	16
5. I think more teachers could benefit from the program.	0	3	18	14
6. It was helpful to see what other teachers were doing.	0	2	15	18
7. I feel that making changes is necessary but not easy.	0	0	10	25
8. I felt respected as an equal partner in the design and execution of the language training project.	0	3	19	13
9. I felt my opinions /suggestions/contributions were respected.	0	6	20	9
10. I felt that working as an active member of the language team was helpful in my development as a teacher	0	1	13	21
11. I felt my contribution to the project was important.	0	3	22	10
12. I felt my participation was valued.	0	1	18	16
13. I felt a great responsibility to assist in creating a communicative environment in my class.	0	1	12	22
14. I felt that teaching the students to listen and respect each other was as important as developing their speech.	0	1	8	26
15. I felt encouraged when students attempted to speak to me outside of the class.	0	1	4	30
16. I feel that students are capable of learning a language without translation.	0	6	17	12

	Disagree	Somewhat Disagree	Somewhat Agree	Agree
17. I feel the importance of using the target language (English) in my classroom	0	1	6	28
18. I feel that it is important for students to have opportunity to communicate individually, in pairs and in small groups to solve problems or complete language tasks.	0	0	9	26
19. I feel it is important for students' speaking, listening, reading, writing, questioning and thinking skills to develop simultaneously.	0	0	5	30
20. I would like to continue making changes in my language class.	0	1	7	27

4.4 Class Motivation Index Results

Practitioners can be better informed about how to modify their practice when they are more aware of the motivational dynamic operating in their classrooms. Just as individuals are going to be effected by mastery and vicarious experiences and social persuasion, so too will the student population as a whole. If within a class the majority of students are interested and committed in their motivation to succeed, the group dynamic will be likewise affected, however; it only stands to reason that the inverse would be true if the majority feel disinterested and commit little effort to learning. Due to the changeable nature of motivation the CMI Survey provides practitioners with a general indication of the level to which their class of students is interested in the subject at a given point in time. Based on the CMI score a teacher would be better informed regarding the extent to which he/she can challenge the group and when providing a more safe and supportive learning environment is called for. Ultimately, what the researcher and the teachers hoped for was that, through the process of increasing the opportunities for students to apply their developing language skills in language class, students would express a deeper interest in the subject and be willing to expend more effort toward

acquiring it. As well it was hoped that disinterest in the subject would be considerably decreased.

In examining the results of the Wilcoxon signed-rank test (z) there appear to be some slight differences between primary pre and post test responses compared to those of secondary students (fig. 9 & 10).

Figure 9: Primary Student Responses to the Class Motivational Survey

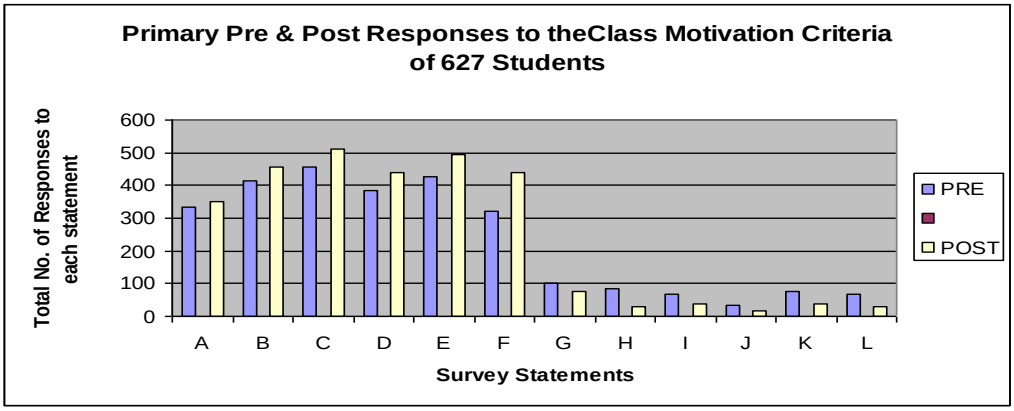
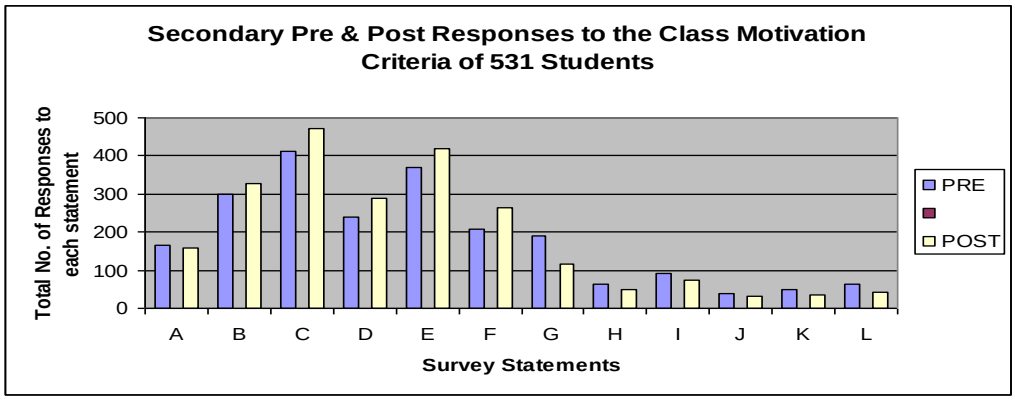


Figure 10: Secondary Student Responses to the Class Motivational Survey



The researcher would like to first examine primary responses to statements A-F reporting levels of interest for studying English (see Fig. 11) which seem to indicate significant increases in response percentages to statements: **B** [Pre-Test *(Mdn. = 62%)* and Post-Test *(Mdn. = 71%), z = -2.06, p = 0.04, r = -0.38*]; **C** [Pre-Test *(Mdn. = 75%)*

and Post-Test *(Mdn. = 82%), z = -2.2, p = 0.03, r = -0.4*]; **E** [Pre-Test *(Mdn. = 71%)* and Post-Test *(Mdn. = 81%), z = -2.16, p = 0.03, r = -0.39*] and **F** [Pre-Test *(Mdn. = 53%)* and Post-Test *(Mdn. = 70%), z = -2.87, p = 0.004, r = -0.52*]. Responses to statements A and D were not significantly different *($p \geq 0.05$).* The Primary results were all based on negative ranks indicating that the Post-Test response percentages were, in each case, higher than those of the Pre-Test. Since statements A-F indicate instrumental and integrative motivation, the primary students seem to be motivated more in these areas.

Figure 11: Results of the Wilcoxon Signed-Rank test for statements A-F

	I feel learning English is important because my parents and friends tell me it is important.	I feel learning English is important because I don't want a bad grade.	I feel learning English is important because I can get a good job in the future.	I feel learning English is important because I can learn more information about the world.	I feel learning English is important because I can make new friends from different countries.	I feel learning English is important because I can share my ideas with more people.
	A	**B**	**C**	**D**	**E**	**F**
z - Score PRIMARY	-0.031	-2.06	-2.20	-1.41	-2.16	-2.87
Direction of ranks	*Neg.(-)**	*Neg.(-)**	*Neg.(-)**	*Neg.(-)**	*Neg.(-)**	*Neg.(-)**
Asymp. Sig (2tailed)	0.975	0.039	0.028	0.158	0.031	0.004
Effect size (r) PRIMARY	-0.01	-0.38	-0.40	-0.26	-0.39	-0.52
z - Score SECONDARY	-0.46	-0.80	-2.40	-1.27	-2.43	-2.50
Direction of ranks	*Pos. (+)***	*Neg.(-)**	*Neg.(-)**	*Neg.(-)**	*Neg.(-)**	*Neg.(-)**
Asymp. Sig (2tailed)	0.657	0.424	0.017	0.203	0.015	0.013
Effect size (r) SECONDARY	-0.10	-0.17	-0.51	-0.27	-0.52	-0.53

* *Neg. (-)* = Post-Test response percentages > Pre-Test response percentages.
**Pos. (+) = Post-Test response percentages < Pre-Test response percentages.

Cohen's effect sizes	
r = 0.1	Small (explains 1% of total variance)
r = 0.3	Medium (explains 9% of total variance)
r = 0.5	Large (explains 25% of total variance)

Response percentages of secondary students to statements A-F indicate significant increase in fewer of the statements (see Fig. 11): **C** [Pre-Test (*Mdn.* = 78%) and Post-Test (*Mdn.* = 86%), *z* = -2.4, *p* = 0.017, *r* = -0.51]; **E** [Pre-Test (*Mdn.* = 73%) and Post-Test (*Mdn.* = 81%), *z* = -2.43, *p* = 0.015, *r* = -0.52] and **F** [Pre-Test (*Mdn.* = 33%) and Post-Test (*Mdn.* = 49%), *z* = -2.5, *p* = 0.013, *r* = -0.53]. Responses to statements A, B and D were not significant ($p \geq 0.05$). Also interesting to note about the secondary responses is that the statement A results were based on positive ranks indicating that the

Post-Test responses were fewer than the Pre-Test responses, all others however, followed primary in that they were entirely based on negative ranks. The secondary students seem to have a higher affiliation toward integrative motivation than instrumental.

Results from both primary and secondary saw a significant rise in class percentages in regard to envisioning English proficiency as important for their future work (C), as a means to make new friends (E) and an opportunity to share their identity with others (F). Looking at the effect sizes we see a large effect for primary in response to statement F and at secondary in responses to statements C, E and F. As well primary students were also more interested in putting effort into the subject so as to avoid a 'bad grade' (B). It is possible that these slight differences were more related to the place each group of students were in their lives. Secondary students certainly would be more concerned about aspects of life that were closer to them such as the prospects of a good job, whereas this was a concept that was still quite far away in regard to primary students. Though it would not be advisable for the researcher to suggest that the differences observed were related to the changes made in the classroom alone, there seems to be fairly strong indication that by altering the learning environment so as to encourage more interaction between students it may enable students to perceive using the language more in their lives outside of class.

Now let's look at the responses of students who were not interested in studying English as indicated by responses to statements G-L (see fig. 12). It was hoped that in addition to increasing interest in the subject, the changes in the learning environment could also work to decrease the percentage of students who identified themselves as being disinterested in studying English. In fact, the percentage responses to all

statements in this section (G-L) of the survey were based on positive ranks indicating that the percentage of Pre-Test responses were higher than the Post-Test responses. At the primary level there seemed to be a significant decrease in response percentages to statements: **H** [Pre-Test (*Mdn.* = 11%) and Post-Test (*Mdn.* = 5%), $z = -2.67$, $p = 0.008$, $r = -0.49$]; **K** [Pre-Test (*Mdn.* = 11%) and Post-Test (*Mdn.* = 6%), $z = -2.27$, $p = 0.023$, $r = -0.41$] and **L** [Pre-Test (*Mdn.* = 8%) and Post-Test (*Mdn.* = 6%), $z = -2.48$, $p = 0.013$, $r = -0.45$]. Responses to statements G, I and J were not significant ($p \geq 0.05$). Secondary responses indicated significant difference in fewer statements: **G** [Pre-Test (*Mdn.* = 33%) and Post-Test (*Mdn.* = 18%), $z = -2.93$, $p = 0.003$, $r = -0.63$] and **L** [Pre-Test (*Mdn.* = 14%) and Post-Test (*Mdn.* = 9%), $z = -2.48$, $p = 0.013$, $r = -0.45$]. Responses to statements H, I, J and K were not significant ($p \geq 0.05$). While there was delight in seeing that at both primary and secondary levels there was a significant decrease in percentage of students feeling that the study of English was a threat to their identity (L) the effect size was large at the secondary level only. Examining only effect sizes, at the primary level we could observe medium size effects for the responses of each statement that indicated a significant decrease, whereas at the secondary level significant differences also indicated large effect sizes. It appeared that changes to the learning environment were important in helping secondary students to justify the effort that was necessary for studying English well. Though some critical readers may suggest that the changes did no more than assist the students to perceive the study of language as more enjoyable – while this may be true it is essential to understand that for each of these cases there was pressure placed on the teachers in the training to maintain the same standards and pace that their colleagues had established as all students would sit the same

assessment papers. So then when looking at the decrease in percentage of responses to statement G at the secondary level it is essential to note that the changes added more work, within an environment which challenged the students to interact using a higher degree of English than their peers at the same grade level who did not experience a changed learning environment. Also worth considering is the fact that teachers involved in the program required students to vocalize their communication much more than did their colleagues, this was probably in view of the fact that assessment tools designed by the English committees did not include an oral component. Also noteworthy is that primary students began identifying themselves not only as Chinese speakers who would remain in the territory (K) and that it (the English subject) was no less important than other subjects (H). Certainly the simulation of reality-based communication through tasks and activities required in English class, opened up opportunities for students to value the subject more as a means through which they could develop further.

Figure 12: Results of the Wilcoxon Signed-Rank test for statements G-L

	I don't feel learning English is important because it takes too much work.	I don't feel learning English is important because other school subjects are more important.	I don't feel learning English is important because I can live happily without it.	I don't feel learning English is important because I have no use for it in the future.	I don't feel learning English is important because I will always live in Macao so Chinese is more important.	I don't feel learning English is important because I am Chinese, English isn't my language.
	G	**H**	**I**	**J**	**K**	**L**
z - Score PRIMARY	-0.94	-2.67	-1.96	-1.68	-2.27	-2.48
Direction of ranks	*Pos. (+)***	*Pos. (+)***	*Pos. (+)***	*Pos. (+)***	*Pos. (+)***	*Pos. (+)***
Asymp. Sig (2tailed)	0.345	0.008	0.050	0.093	0.023	0.013
Effect size (r) PRIMARY	-0.17	-0.49	-0.36	-0.31	-0.41	-0.45
z - Score SECONDARY	-2.93	-1.40	-1.96	-1.75	-1.36	-2.80
Direction of ranks	*Pos. (+)***	*Pos. (+)***	*Pos. (+)***	*Pos. (+)***	*Pos. (+)***	*Pos. (+)***
Asymp. Sig (2tailed)	0.003	0.161	0.051	0.080	0.173	0.005
Effect size (r) SECONDARY	-0.63	-0.30	-0.42	-0.37	-0.29	-0.60

* *Neg. (-)* = Post-Test response percentages > Pre-Test response percentages.
**Pos. (+) = Post-Test response percentages < Pre-Test response percentages.

Cohen's effect sizes	
r = 0.1	Small (explains 1% of total variance)
r = 0.3	Medium (explains 9% of total variance)
r = 0.5	Large (explains 25% of total variance)

In addition to looking at the overall percentage of responses statement by statement the researcher compiled the Pre Class Motivational Index (Pre-CMI) and Post Class Motivational Index (Post-CMI) for each class at the primary and secondary level (see Appendix A6) and ran these scores through the Wilcoxon Signed-Rank test as well. The CMI generate scores that could potentially fall between -21 and +21, though it is unlikely that an entire class would communicate only interest or disinterest in studying English (see Appendix A5). Based on the comments made by teachers in the CMI reflection survey (see Appendix A5.1) about their respective class of students (n = 1158) the median CMI fell between 8 and 15 for both primary and secondary levels. Teachers did comment on more observable participation and higher levels of interest from their students when the score was $\geq$ 10. In fact if we track the responses of teachers the following scores seem to have implication on the dynamic teachers observed within their respective class:

CMI scores $\leq$ 5 Low motivation (passive, little interaction, avoids being called upon…)

CMI scores = 6 – 9 Average motivation (waits to be called upon, uninterested, quiet…)

CMI scores = 10 – 13 Above average motivation (displays interest, shows positive attitude, active…)

CMI scores $\geq$ 14 High motivation (enthusiastic, takes initiative, interactive…)

Based on the comments teachers made in response to question seven of the CMI Survey (see Appendix A.5.1); it was clear that teachers attributed their students' changed behavior and increased CMI scores to the fact that they changed their methodology through utilizing more group-based activities, requiring students to interact more with each other, making content more relevant to students and introducing discussion and role-play tasks in class. When asked whether the CMI score was a useful indicator (see Appendix A.5.1 responses to question 8); the overall sentiment of teachers suggested that it was helpful in confirming that their changes were moving in the right direction, in understanding their students better, and in designing and assessing the learning environment more appropriately.

Figure 13:Primary CMI Pre & Post Test Results

Primary CMI Pre & Post Test Results

	Pre Test	Post Test
N =	15	15
Minimum	4.6	10.8
25% Percentile	6.5	11.2
Median	8.4	14.6
75% Percentile	10.5	16.2
Maximum	11.5	18.7
Mean	8.3	14.0
Std. Deviation	2.1	2.7
Std. Error	0.5	0.7
Lower 95% CI	7.1	12.6
Upper 95% CI	9.5	15.5

In all cases at the primary level (Fig. 13) there was an increase in the CMI scores which were supported by changed behaviors in regard to class participation and interactive

dynamics observed by the teacher. With the exception of one Form 2 (F2) class in which the CMI score decreased slightly in the Post-Test (See Appendix A5), the secondary level (Fig. 14) classes all reported an increase in CMI scores as well. When I consulted with the teacher of the F2 class referred to above, there was an apparent increase in her class' concern with their results on other subjects [Statement **H** (Pre-Test = 18%, Post-Test = 36%)]. She felt that this may have been a reaction to the pressure students felt in anticipation of an upcoming examination in Math in which a large percentage of her class had verbalized they were in danger of failing. As it was impossible to investigate the matter further considering the academic year was at an end, a special note of this particular case is made for the information of the reader, however, this one class does seem to be an exception rather than a standard.

Figure 14: Secondary CMI Pre & Post Test Results

Secondary CMI Pre & Post Test Results

	Pre Test	Post Test
N =	11	11
Minimum	6.2	6.8
25% Percentile	6.7	9.6
Median	8.6	11.7
75% Percentile	10.7	13.1
Maximum	14.4	15.0
Mean	8.8	11.4
Std. Deviation	2.5	2.5
Std. Error	0.7	0.8
Lower 95% CI	7.2	9.7
Upper 95% CI	10.5	13.1

V CONCLUSION & RECOMMENDATIONS FOR FURTHER STUDY

5.1 Conclusion

Having analyzed the data generated through this professional development training model it is clear that participating teachers perceived that their involvement in the program enabled them to make significant adjustments to their teaching practice. Data collected have effectively recorded the stages of growth over the duration of the program. When we look at the mean experience of all thirty five teachers the incremental differences from the beginning to the end of the program far exceed what could be expected from a natural maturation process over this amount of time. Despite the fact that, individual growth over this time may have been varied, participants referred to the process they experienced in transformative terms. At the end of the program teachers expressed an increase in confidence and capacity to create a teaching and learning environment in the classroom that encouraged students' to more actively participate in the learning process. As well, it appeared that the exposure to more interaction among students worked not only to change their (the students') perception of why they valued English class but reduced their disinterest in the subject as well. Unlike the Venezuelan study with local teachers of English as a second language (Chacon, 2005) which concluded that strong teacher efficacy at the onset was important to the success of the reform, this case study yielded a strong likelihood that it is possible to raise the professional efficacy of teachers to pedagogic reform as long as the right conditions exist.

Though this study is small and certainly does not imply generalizability it contributes to the literature in regard to the implications made that it is possible for a professional development program to enhance professional efficacy of teachers even in

areas that were previously unfamiliar to them. This study focused on the process of the training rather than content for the purpose of examining the model suggested. It was clear in the Teachers' Professional Journal entries as well as the Teachers' Participation Survey that they perceived the program as beneficial to them. Elements of the training that they voiced as beneficial were:

1. Collaborating in teams and as a professional community to reach collective action-research goals:

   Working to achieve collective goals that the teachers identified as important to a healthy EFL teaching and learning environment was an essential component of the program. These goals allowed teachers to work together for the purpose of designing and sharing alternative strategies while providing a standard of accountability throughout the duration of the training.

2. Participating in forums to share experiences and work through alternatives to problems with practitioners from other schools:

   Forum participation not only enabled teachers to obtain support from peers but assisted in developing a professional community of professionals who shared the same challenges and acquired the same discourse addressing relevant concerns.

3. Support from facilitators in the field (classroom and school):

   When facilitators join practitioners in the classroom there is a greater incentive to apply new strategies and methods. In addition participating teachers can understand that facilitators are committed to the methods they've introduced. Often after attending a training event such as a conference or workshop teachers feel that they've been introduced to a good idea that for one reason or another won't work in their

respective classroom… Assisting teachers to take on the role of action researcher pushes them to act on what they've learned.

4. Engaging in a first-hand experience of language instruction in which a dynamic communicative environment was modeled and successfully managed (the Advanced English class):

   Enabling teachers to experience the role of students provides them with a model of how to implement the new methodology in their own classrooms.

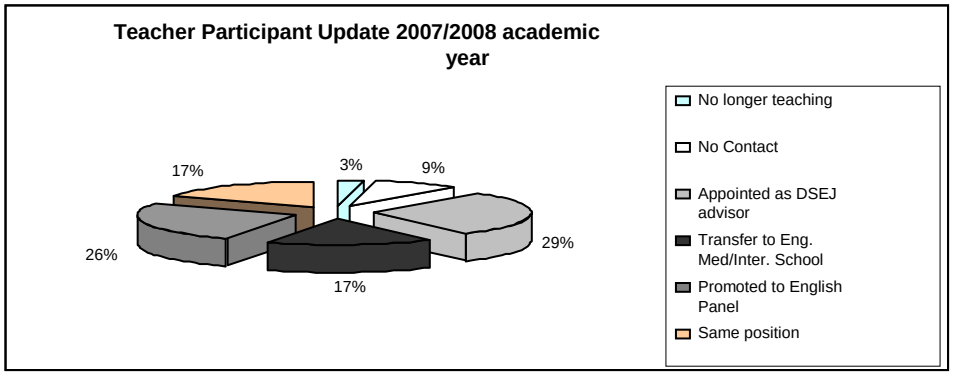
5. Feeling supported as a member of a professional community of educators facing similar problems and difficulties in the field:

   Participating as an active professional community member assists teachers to develop empathy towards each other and provides members facing difficulties with problem solving strategies.

In considering the limitations of this study; specifically in regard to the fact that the Hawthorne effect was not eliminated, there may be grounds to argue that in an action research process that involves participants working in areas that are unfamiliar, the conscientiousness of the practitioner to behave in a way that may not be considered normal, may in fact be an opportunity for that individual over time to gain mastery over his/her new behavior and experience positive results to the extent that the new behavior replaces what previously was considered normal. It seems that one way to determine whether this is indeed true would be to investigate whether the participants continued to display the new patterns of behavior even after the program had finished. Though the researcher was not able to receive permission to observe classes after the completion of the study, an effort was made to make contact with all the teachers involved in the

program to see how they were progressing during the 2007-2008 academic year. With the exception of three primary teachers who did not respond and one secondary teacher who had since left teaching and was now working for an international corporation, the majority of the teachers (72%) had experienced either promotion or recognition for their teaching service (see Fig. 15 below and Appendix A13). It is interesting to note that the largest form of promotion offered to 10 of the 35 teachers (29%) was either full-time or part-time appointment to the Macao DSEJ Curriculum Reform Committee to work on the English Curriculum reform at their respective grade levels – these were not positions that the teachers were able to apply for, rather it was through recommendation of their own school administrations that they were appointed. Equally impressive is the fact that 6 of the 35 participants (17%) were able to fulfill the hiring requirements of either English medium or International schools which enabled them a significant increase in salary and benefits. As well 9 of the 35 participants (26%) became members of their school's English Panel, responsible for setting the English academic program and requirements for the teaching and learning environment of the school.

Figure 15: Teacher participants' self-reported progress 2007/2008



5.2 Reflexivity; One facilitator's remarks

> "Tomorrow is not something that necessarily will happen, nor is it a pure repetition of today with its face superficially touched up so it can continue to be the same… Men and women make the history that is possible, not the history that they would like to make or the history that sometimes they are told should be made." (Freire, 1988, p. xxviii)

Meaning is attached to a research endeavor when the exploration, itself an illustration of an event or behavior fixed in time, can transcend the limitations of time and context to inform future events or behaviors. There is no denying the complexity of the relationship between past, present and future, and while the importance of history is evident, the present and future cannot be seen as merely repetitions of what precedes them. Following the above quoted sentiments of Freire, the editors of Research Policy (2009) make an interesting observation 'we can think about the future as a set of possibilities; exactly which one we will get, while undoubtedly constrained by the past, also depends on the actions we take today.'(Editorial, 2009, p. 571)

The fact that globalization has placed an increased pressure on present day language teachers working in developing regions of the world, such as Macao, is a present day political reality. Though English is not an officially recognized language of the Macao Special Administrative Region (SAR), it is a required subject in all schools registered under the Educational Authority of Macau (DSEJ) (schools are required to allot instructional time equivalent to that of mathematics). There is pressure on teachers from both the government and the business community to significantly increase the number of human resources who can attract international investors and/or tourists as well as from parents and society who want to see youth leaving school with diversified skills and abilities that will enable them to compete in an ever more complex job market. Local

teachers are often the target of blame when the expectations of the community are not sufficiently met. Yet the community has not provided them with training to prevent this outcome. Language teachers in Macao are not equipped to respond to the wishes of those who value the facilitation of English language acquisition, for the existing dynamics were not present when they were language students.

Asian regions, such as neighboring Hong Kong and Japan have established policies to integrate native English speaking teachers into the school system (Hong Kong's Education & Manpower Bureau (EMB) began its Native English Teacher Scheme (NETS) in 1998) there are mixed reviews of the overall effectiveness of the NETS and some concern that local non-native English teachers are marginalized as a result of its implementation (Lung, 1999, Lai, Oct. 1999, Nunan, 2003). One study collected student perspectives of non-native ESL teachers (NNESLT) in Hong Kong as compared to native English teachers (NET) in a survey. The overwhelming outcome of this data set indicated that in the areas of oral proficiency, pronunciation, and grammatical accuracy students considered NNESLT faculty far below their NET counterparts (Tang, 1997). Considering the fact that local teachers receive more duties with far less pay and fewer benefits, it is not difficult to understand the implications of Hogg and Abrams sentiment regarding the formation of social identity; 'the social identity perspective holds that all knowledge is socially derived through social comparisons" (Abrams and Hogg, 1990, p. 222).

A process of collaborative action research was used in this case study to explore a model of how local English teachers may be reoriented to standards based methodologies that may enhance the language acquisition process in the classroom and allow them to

collaborate on par with native English speaking teacher colleagues. The decision to use a collaborative approach was made with the aim in mind to give voice to the practitioners involved in the project.

There are a number of cases combining collaborative action research and professional development which contribute to the literature (Selener, 1997, Allen and Calhoun, 1998, Burgess-Macey and Rose, 1997, Oja and Smulyan, 1989, Dadds, 1995, Elliott, 1980). While the subjects of some of these studies consist of marginalized population, few match the de-valuation experienced by local EFL teachers in the region.

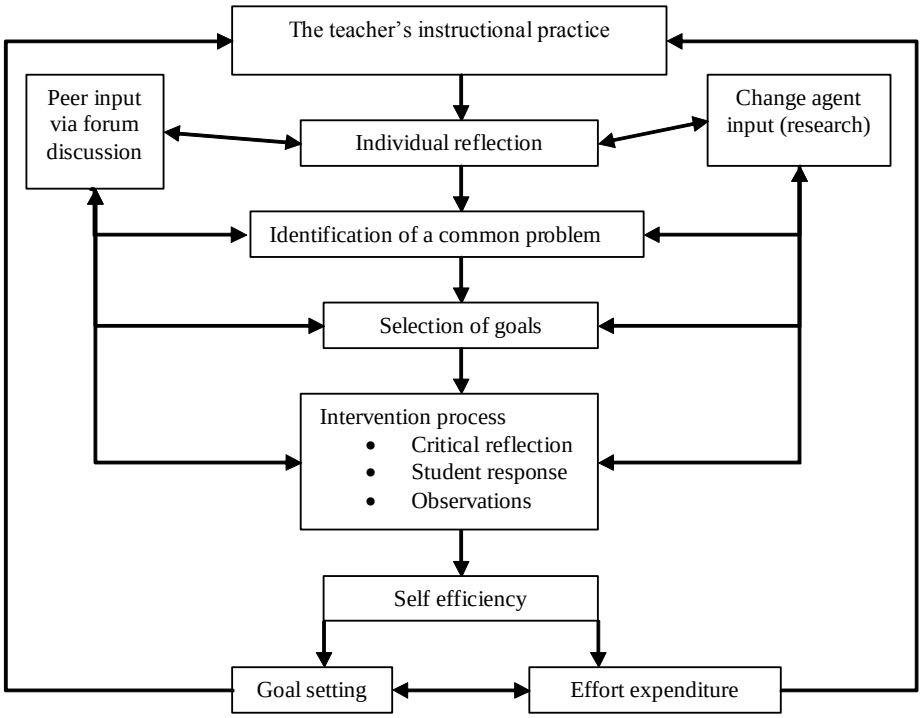
The participants in this particular case study, contrary to the opinions of some researchers (Cohen et al., 2007) who criticize the collaborative element as restrictive, appeared to have derived their strength from working as a collective team.

The process model for individual teacher change, utilized during this study and illustrated in Figure 16 is strongly influenced by social cognition theory (Bandura, 1997) and reflection within the collective action research process (Richards and Lockhart, 1996). It proposes that teacher change occurs when the tri-stage cyclical process of 1) reflection (on experience), 2) action and 3) critical reflection (on the intervention) is facilitated through an environment of supportive input from peers and change agents[18], and that self efficacy beliefs mediate the influence of this process on teacher practice.

The cycle illustrated below (Fig. 16) is based on shared (the individual teacher, peers and change agents) teaching cognitions about teaching practice especially in regard to establishing and maintaining a dynamic learning environment in the classroom.

[18] The role of facilitator represents that of the change agent.

Figure 16: Model of collective action research as a mechanism for teacher development



Professional forums, classroom observations and personal experiences are influenced by and influence each teacher's perception of effectiveness. First the teachers identify a common problem to address; they then consider what goals they would like to achieve relative to the elimination or lessening of the identified problem. These goals then become the standards through which individual teachers subjectively measure their own success and the means through which they encourage the success of others. Finally after collaborative discussion, individual teachers then customize a plan of action (intervention) for their own classroom community.

Participation in the collaborative process provides teachers with a support to eliminate identified obstacles to learning, to ensure transparency and to focus concentration on common objectives or goals. In the achievement of goals, teachers are encouraged to utilize methods and strategies of good practice. Collaborative action

research contributes to teachers' beliefs about their ability to bring about student learning; which is a form of professional self efficacy.

Teachers, who perceive themselves to be successful, regardless of the accuracy of this judgment, expect to be successful in the future. "Teachers become confident about their future performance when they believe that through their own actions they have helped children to learn" (Ross and Bruce, 2007, p. 147). Teachers who anticipate that they will be successful are then able to set higher goals for themselves and their students; in addition they are willing to expend more effort in the process of realizing those goals (Ross, 1992). Not only are teachers more motivated to experiment with new ideas but they appear more confident in overcoming any obstacles they may incur along the way. Research seems to support the idea that teachers with high expectations about their ability to teach, produce higher student achievement (Goddard, 2004). While this study did not seek to measure student achievement before, during and after the process it did attempt to measure the extent to which students demonstrated a willingness to participate in tasks assigned them.

The underpinning basis of social constructivist theories of learning, assume that learning occurs when individuals hear the thoughts and ideas of others and articulate their own emerging understandings. The theoretical model of teacher change based on the collaborative action research process falls within this broader sense of social cognition theory. It is not absolute successful implementation of the intervention that is sought (though that would be a welcome bonus) but rather that each individual teacher's interpretation of the experience is one of success.

Individual reflection, though an independent process, can be enhanced by colleagues. The model proposed incorporates input from colleagues and observation of students' reactions as well. This input works on a variety of levels; when positive there is an obvious feeling of recognition and appreciation for efforts made and this works to build confidence and confirm feelings of success. The input can also compete with the individual teacher's understanding or interpretation of the situation. The teacher would then have to weigh the credibility of this input which would involve consideration of the source, interpretation of whether the input is isolated or substantiated by the observations and comments from others and finally whether there are any references to constructive strategies from which an action alternative could be formed.

In the collaborative process, even challenges can be addressed in a positive way as participants work together to suggest strategies and to implement them. This collaboration can successfully promote teacher efficacy (Chester and Beaudin, 1996). The professional forum discussion was a very powerful element employed in this case study; participation in the forum gave teachers the opportunity to share success stories and suggest how they may have occurred as well it provided an opportunity to discuss problems and consider alternative strategies that may be called upon in their solution. The forum could take the form of peers communicating equally as a large group, or small group collectives with common characteristics (e.g. colleagues working in the same school or a collection of P3 teachers) and when necessary it also morphed into a mock classroom where alternative strategies could be modeled and experienced by the group.

External change agents, such as the facilitators in this case, have a role to play in the process of influencing teacher change in the collective action research process. It is

important however that they maintain a participant observer role within the process and guide rather than lead. An individual who is empathetic to the difficulties faced by the participants and is knowledgeable about how to face and eliminate these difficulties is a valuable asset. The influence of the external change agent is similar to that of peers, though they may occupy a different perceived level of influence based on experience and awareness of resources and strategies that are available to employ that could perhaps lead to higher overall achievement.

All the participants in this case study were local (or non-native English speaking teachers) involved in teaching English as a Foreign Language (EFL) which differs from second language teaching (L2 or ESL) in that the target language is not predominately used outside the classroom. As well the participants all taught in Chinese medium schools where the only exposure to English that students have is contained within the English classroom.

The teachers selected 'lack of student motivation in the EFL classroom' as their common problem to address. A range of relevant literature (Cook, Summer 1999, Ellis, 2003, Klein, 1986) was explored in this area of study and the teachers were presented with a comprehensive overview of second language acquisition (SLA) strategies which tended to focus on the following general themes: 1) language cognition occurs within a social context; 2) task-based learning provides students with a reality-based context for learning and practicing the language; 3) there are a variety of strategies teachers can employ to create a dynamic language learning environment; 4) The language classroom should be supportive, encouraging and challenging; 5) language students require a variety of means to practice and apply their developing communicative skills and 6) language

learners should be guided to envision a purpose for acquiring the target language. After a great deal of discussion, participating teachers then determined three goals that they would collectively work on in the process of their collective action research: 1) to create an English immersion environment in the classroom[19]; 2) to challenge students to solve problems and complete reality-based tasks in groups; 3) to provide opportunities for public recognition of students' English achievements.

Local language teachers throughout Asia often select this career route as a result of their own successful language acquisition experience and considering the fact that teacher qualification programs in the region do not offer a specialization in language teaching *per se*, it is expected that teachers will teach as they have learned. This explains why local teachers in the field tend to use the grammar translation method of instruction (characterized as *the traditional method*), as this was the methodology employed in their learning process. Though this paper will not argue the effectiveness of one methodology over another the fact that the world is more complex as a result of globalization probably suggests that teachers should utilize a variety of strategies to assist students to become more communicative.

The advanced English class for teachers served this process well, while admittedly, the main objective of this class was to introduce teachers to the vocabulary and concepts that could expand their professional discourse, it also served to give teachers the first-hand experience of learning in a meaning-focused learning environment. While there was a planned structure for the content of this class, often what teachers considered the most beneficial sessions were those that were created to demonstrate a strategy or

[19] While English immersion programs have received criticism, what is referred to here is the commitment

technique the teachers were having difficulty managing (e.g. assigning and maintaining effective group tasks).

While the cyclical process that highlights how each teacher affects a change is illustrated in Fig. 16, what's not highlighted is the fact that this cyclical process is multi-dimensional for the teacher's peers are simultaneously engaged in their own process as is the change agent. In explaining the necessary dynamics Burns (1999) communicates the following:

> It demands complexity, numerous complex and interrelated processes where evaluations are constantly made about students, events, activities and interactions and where planning involves and intricate interplay between preparation, moment-to-moment planning, decision making and subsequent planning in light of what occurs. (Burns, 1999, p. 214)

If one takes time to contemplate the myriad of challenges that present themselves in an action research process, it is rather difficult to understand why it is sometimes referred to as a soft form of research. In addition to the careful ethical considerations required for any research endeavor that includes real subjects, a researcher must acknowledge the institutional circumstances and conditions existing in many schools. The occurrence of teachers conducting research is not as widely accepted as it is for university faculty (Jarvis, 1980, Myers, 1985). This may make it difficult for teachers' contributions to be acknowledged, let alone appreciated. A survey conducted by McKernan (1993) revealed that in addition to the time constraints placed on teacher-researchers, in general research may be considered as extra-curricular or outside of classroom practice. In addition,

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of the teacher to provide a significant target language environment for students during the language class.

teachers desiring to conduct action research may appear to be a threat to accepted norms and conventions of the school. In fact this was the reality that the teachers in this study faced. Teacher colleagues were threatened by the idea that their peers were conducting research to improve practice. These colleagues feared the implications to their own practice that would result from the information gathered. Even English-panel members were concerned with the possibility that the routines and procedures they had established for all the teachers to follow would be disrupted and their authority possibly undermined. It is beyond the control of the change agent to anticipate many of the obstacles that will need to be overcome if the collaborative action research process is to be successful.

The final consideration in concluding this chapter involves determining whether the collaborative action research model described here is one of training or development. While on one hand training is involved; training is essential in the introduction of new ideas, techniques and concepts. Though, as is argued by Freeman (1989) 'development takes place when teachers independently decide which aspects of their practice they will alter and when they are given opportunity to be critical and make changes in their own teaching behavior – with the existence of these two conditions the development phase begins (p. 40). If the journey of each teacher in this collaborative action research process is given proper recognition, there is no doubt that development resulted from their engagement in the process.

> To have longer term effects, it seems to me that professional development needs to involve teachers in generating their ideas about classroom practice and being involved in the process rather than to have externally imposed professional

> development activities. Action research provides the potential for teacher's involvement at varying levels. (Hamilton, 1997, p. 147)

As well, when teachers feel sufficiently efficacious about progress made to refer to their own change result as developmental this in itself is an inertia that should not be hindered (Lieberman, 1995). Development should also be indicative of a change that is sustainable beyond the constructs of a research study or any professional development endeavor. The sustainability of this research study is evident in the fact that career enhancement opportunities have been granted to a significant percentage of teachers who successfully completed it. This is especially true for the 29% of participants who have been called upon to become change agents working for the Macao DSEJ Curriculum Reform Committee to work on the English Curriculum reform at their respective grade levels.

Based on personal experience this researcher is well aware of the momentum that is created through the satisfaction of feeling that one has contributed in producing higher student achievement. For the teacher – participants in this research have indeed demonstrated a great capacity to transform their practice by remaining committed to the collective goals that they themselves set at the onset of this program, opening themselves to the critical feedback from peers and change agents and engaging in critical self-reflection at each stage of the process.

Oftentimes professional development programs are facilitated by experts who have been mandated to attain the goals and objectives identified by the sponsoring organization. Regardless of whether or not the teacher-participants are consulted in

identifying those goals and objectives, once a program with its supplementary materials takes a written form that is expected to be adhered to; it is training.

The development model introduced in this case study requires sponsoring institutions to adopt a mindset based on the following assumptions:

- Teachers who have committed themselves to the teaching profession probably prefer to be successful rather than unsuccessful.
- Teachers can probably benefit from the critical perspective of peers and outsiders provided that everyone has a clear understanding of the collective goals or standards to be achieved.
- Teachers can probably understand and take interest in educational research if they, themselves have the opportunity to engage in the process and its application.
- Teachers are probably in the best position to understand which theoretical approaches and/or strategies could be applied to their own teaching and learning environment.
- Teachers are probably very concerned about their learners both as individuals and as a collective community.

The above assumptions will not come easy for schools and institutions that are feeling pressure from the community, school boards or educational authorities though to not assume the best of one's front-line educators is essentially an admission of despair. No change effort is easy, though the best forms of change are achieved when an atmosphere of respect, collaboration and critical reflection among all stake holders exist.

Rather than working to close a chapter in understanding the situation as regards how schools in the Macao SAR facilitate the classroom language acquisition process, this

case study opens the door for further exploration with a renewed hope that development is possible. While there is no guarantee that every participant in a professional development program will be receptive and willing to put forth the effort to make significant changes in his/her pedagogical practice, being cognizant that it can happen certainly provides the stimulus to continue trying. It would be interesting to explore what would happen once a critical mass of local English language teachers were exposed to this form of professional development training model.

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Appendices

A1 Timetable for Training Program

The Structure and Timetable for the Course

Primary Teachers' Schedule

Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04
Introductory meeting with facilitators and students. ***Combined*** Module 1 2 hours (1x2hrs.)	Module 1 8 hours (4x2hrs.)	Module 2 6 hours (3x2hrs.)	Module 2 4hours (2x2hrs.)	Module 3 8 hours (4x2hrs.)	Module 3 2 hours (1x2hrs.) Module 4 6 hours (3x2hrs.)	Module 4 4 hours (2x2hrs.)	Module 5 2 hours (1x2hrs.) **Combined**	Module 5 8 hours (4x2hrs.) **Combined**
				Advanced English 5 hours (2x2.5hrs.)	Advanced English 10 hours (4x2.5hrs.)	Advanced English 7.5 hours (3x2.5hrs.)	Advanced English 7.5 hours (3x2.5hrs.)	
	Tutorials* 20 hours to be scheduled	Tutorials* 10 hours to be scheduled	Tutorials* 10 hours to be scheduled	Tutorials* 20 hours to be scheduled	Tutorials* 20 hours to be scheduled	Tutorials* 20 hours to be scheduled	Tutorials* 20 hours to be scheduled	

*** Note: Tutorial hours listed for each module will be divided among the group *not per individual*.**

	Venue	Time	Day
Primary Modules	University	19:00-21:00	Tuesday
Secondary Modules	University	19:00-21:00	Thursday
Combined Pri/Sec Modules	University	19:00-21:00	Tues./Thurs.
Advanced English	University	14:00-16:30	Saturday
Tutorial Sessions	Schools	TBA	TBA

Secondary Teachers' Schedule

Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04
Introductory meeting with facilitators and students. ***Combined*** Module 1 2 hours (1x2hrs.)	Module 1 8 hours (4x2hrs.)	Module 2 6 hours (3x2hrs.)	Module 2 4hours (2x2hrs.)	Module 3 8 hours (4x2hrs.)	Module 3 2 hours (1x2hrs.) Module 4 8 hours (4x2hrs.)	Module 4 2 hours (1x2hrs.)	Module 5 2 hours (1x2hrs.) **Combined**	Module 5 8 hours (4x2hrs.) **Combined**
	Advanced English 12.5 hours (5x2.5hrs.)	Advanced English 5 hours (2x2.5hrs.)	Advanced English 7.5 hours (3x2.5hrs.)	Advanced English 5 hours (2x2.5hrs.)				
	Tutorials* 20 hours to be scheduled	Tutorials* 10 hours to be scheduled	Tutorials* 10 hours to be scheduled	Tutorials* 20 hours to be scheduled	Tutorials* 20 hours to be scheduled	Tutorials* 20 hours to be scheduled	Tutorials* 20 hours to be scheduled	

*** Note: Tutorial hours listed for each module will be divided among the group *not per individual*.**

	Venue	Time	Day
Primary Modules	University	19:00-21:00	Tuesday
Secondary Modules	University	19:00-21:00	Thursday
Combined Pri/Sec Modules	University	19:00-21:00	Tues./Thurs.
Advanced English	University	14:00-16:30	Saturday
Tutorial Sessions	Schools	TBA	TBA

A2 Participant Authorization Form

23, June 2004

Dear _____,

I know you are very busy at the moment and I hope that this request does not pose too much of a burden for you. I would be most appreciative if you could complete the enclosed questionnaires and consent form for Doctoral research I'm conducting.

If you aren't already aware, your participation in this project represents a great potential for the reform of language teaching in Macao. What is happening at each individual school is in itself a great achievement, thanks to your devoted efforts to make improvements, however it is the compilation of all your achievement that will ultimately provide the reason and model for change reform in Macao. In lieu of this fact, I would like your permission to use the data you have collected in the duration of this project to compile a report of your efforts. Your identity and your school's identity will remain anonymous.

You have been provided an envelope of questionnaires that I hope you can help me to complete (of course responses to these questionnaires can be used in your individual project write-ups as well). Any details you may provide will help me to better understand the effects of applying action research to teaching and assessing class motivation. So that your responses remain anonymous please separate questionnaire responses (keep them in the envelope) from this consent form that does require your signature, so that I can have permission to represent your information anonymously in any report published in future.

Thank you in advance for your cooperation.

Sincerely,

Laurie A. Baker-Malungu

I _____ (print your name) herewith give my permission for any work that I've completed for the *Certificate in Language* course to be anonymously utilized for publication in a report or paper with regard to raising the standard of language teaching in Macao.

Signed: _____ Date:_____
(your signature)

A3 Class Motivation Survey Form

Dear Student,
親愛的學生,
Please ✓all the sentences that are true about the way you feel.
請在你覺得正確表達了你的感受的語句後打✓
"I feel learning English is important because
「我覺得學習英文很重要，因爲

- ☐ A. my parents and friends tell me it is important."
  我父母告訴我說它很重要。」
- ☐ B. I don't want a bad grade."
  我不想成績不好。」
- ☐ C. I can get a good job in the future."
  我可以在未來得到一份好工作。」
- ☐ D. I can learn more information about the world."
  我可以更多地了解世界。」
- ☐ E. I can make new friends from different countries."
  我可以跟不同國家的人交朋友。」
- ☐ F. I can share my ideas with more people."
  我可以跟更多人分享我的思想。」

"I don't feel that learning English is important because
「我不覺得學英文重要，因爲

- ☐ G. it takes too much work."
  要花太多功夫。」
- ☐ H. other school subjects are more important."
  其他科目更爲重要。」
- ☐ I. I can live happily without it."
  我不要英文也能活得愉快。」
- ☐ J. I have no use for it in the future."
  將來我用不到它。」
- ☐ K. I will always live in Macao so Chinese is more important."
  我會永遠住在澳門，所以中文更重要。」
- ☐ L. I am Chinese, English isn't my language."
  我是中國人，英文不是我的語言。」

A4 Class Motivational Survey: Valuation

Motivation Criteria (Values Positive)

Positive Statements	**Interpretation**
A. My parents tell me it is important. Value Assigned: +1	This student is motivated, but the motivation depends on an external source. This motivation will only be sustained as long as the student has the desire to please.
B. I don't want a bad grade. Value Assigned: +2	While striving for good grades is not considered negative, if his/her desired results are not met there may not be enough incentive to sustain development in the long term
C. I can get a good job in the future. Value Assigned: +3	The student is considering the future and this suggests a long-term commitment, but his/her understanding may be based on the present economic environment of Macao. If something happens to change this environment his/her motivation may wane.
D. I can learn more information about the world. Value Assigned: +4	The student is beginning to realize language sources that can lead him/her to know more about the world and hopefully foster a life-long learning process.
E. I can make new friends from different countries. Value Assigned: +5	The student sees diversity in the world and is motivated to establish relationships with diverse peoples.
F. I can share my ideas with more people. Values Assigned: +6	The student demonstrates confidence that his/her language capacity can be utilized to share opinions with others.

Motivation Criteria (Values Negative)

Negative Statements	Interpretation
G. it takes too much work. Value Assigned: -1	The student may be temporarily overwhelmed with work and have difficulty managing his/her time resulting in an inability to see value in studying language.
H. other school subjects are more important. Value Assigned: -2	The student may be struggling in other subject areas or receiving external pressure to do better in these.
I. I can live happily without it. Value Assigned: -3	The student does not seem to see value in studying another language at the moment.
J. I have no use for it in the future. Value Assigned: -4	The student cannot see that studying language could be relevant to his/her future.
K. I will always live in Macao so Chinese is more important. Value Assigned: -5	The student cannot imagine himself/herself outside of the present environment and sees no reason to seek anything more.
L. I am Chinese, English isn't my language. Values Assigned: -6	The student seems to feel that studying another language would contribute to loss of identity.

A5 Class Motivation Index (CMI) Pre & Post Reporting with Examiner Reflection Survey

Level:_____ Total # of students:_____ Eng. Sec.____/ Chin. Sec.___

Statement	*Before (Jan.)* *# Student Resp.*	*Class%*	*After (May)* *# Student Resp.*	*Class %*
A My parents tell me it is important.	_____x(+1)		_____x(+1)	
B I don't want a bad grade.	_____x(+2)		_____x(+2)	
C I can get a good job in the future.	_____x(+3)		_____x(+3)	
D I can learn more information about the world.	_____x(+4)		_____x(+4)	
E I can make new friends from different countries.	_____x(+5)		_____x(+5)	
F I can share my ideas with more people.	_____x(+6)		_____x(+6)	
G It takes too much work.	_____x(-1)		_____x(-1)	
H Other school subjects are more important.	_____x(-2)		_____x(-2)	
I I can live happily without it.	_____x(-3)		_____x(-3)	
J I have no use for it in the future.	_____x(-4)		_____x(-4)	
K I will always live in Macao so Chinese is more important.	_____x(-5)		_____x(-5)	
L I am Chinese English isn't my language	_____x(-6)		_____x(-6)	
	Class Motivational Index:____		Class Motivational Index:____	

To calculate the Class Motivational Index:
Multiply the number of student responses for each statement by its assigned value. Dividing the total sum by the number of students in class will give you the *Class Motivational Index.*

To calculate the % of students responding to each statement:
For each statement divide the total number of student responses by the total number of student in class, then multiply by 100.

Motivational Index Reflection:

What was the average time required for your students to complete the Class Motivational Criteria? _____

Methodology: **1. None** **2. Unlikely** **3. Likely** **4. Certainly**

	1	**2**	**3**	**4**
Is there any indication that students could have incorrectly perceived The Class Motivational Criteria to be a form of quiz or test?	☐	☐	☐	☐

Why?_____

Is there any indication that your students were motivated to "please you" With their responses? ☐ ☐ ☐ ☐

Why?_____

Is it possible that your students were influenced by the responses of their peers? (copying from each other or consulting together) ☐ ☐ ☐ ☐

Why?_____

Is it possible that your students interpreted some responses to be more favorable Than others based on your introduction to the task? ☐ ☐ ☐ ☐

Why?_____

Student Responses:

1. Negatively surprised
2. Somewhat negatively surprised
3. Results were as expected
4. Somewhat positively surprised
5. Positively surprised

	1	**2**	**3**	**4**	**5**
What was your response to the *Class Motivational Index* (in Jan)?	☐	☐	☐	☐	☐

Why?_____

What was your response to the *Class Motivational Index* (in May)? ☐ ☐ ☐ ☐ ☐

Why?_____

How did you feel about the percentage of student responses to:	1	2	3	4	5
Statement A?	☐	☐	☐	☐	☐
Statement B?	☐	☐	☐	☐	☐
Statement C?	☐	☐	☐	☐	☐
Statement D?	☐	☐	☐	☐	☐
Statement E?	☐	☐	☐	☐	☐
Statement F?	☐	☐	☐	☐	☐
Statement G?	☐	☐	☐	☐	☐
Statement H?	☐	☐	☐	☐	☐
Statement I?	☐	☐	☐	☐	☐
Statement J?	☐	☐	☐	☐	☐
Statement K?	☐	☐	☐	☐	☐
Statement L?	☐	☐	☐	☐	☐

If you were surprised by the % of responses to any statement, it would be helpful to indicate why.

_____

_____

_____

	Yes	No
Did knowledge of your *Class Motivational Index* influence your future planning and methodological approach?	☐	☐

In which ways?

_____

_____

_____

	Yes	No
Do you think it is helpful for a teacher to be able to measure motivation as a class?	☐	☐

Why?

_____

_____

_____

A5.1 A compilation of teacher responses to the CMI Survey

Case No.	Q1 Is there any indication that students could have incorrectly perceived the CMS to be a form of quiz or test?	Q2 Is there any indication that your students were motivated to "please you" with their responses?	Q3 Is possible that your students were influenced by responses of their peers?	Q4 Is possible that your students interpreted some responses to be more favorable than others based on your introduction to the task?	Average time required to complete the survey	Q5 What was your response to the CMI (in Feb.)	Q6 What was your response to the CMI (in May)?	Q7 Did knowledge of your CMI influence your future planning and methodological approach?	Q8 Do you think it is helpful for a teacher to be able to measure motivation as a class?
1	1	1	1	1	5	4	4	1	1
2	1	1	1	1	5	3	4	1	1
3	1	1	1	1	7	4	4	1	1
7	2	2	2	1	5	3	5	1	1
8	3	3	3	3	10	2	5	1	1
9	1	2	1	1	5	3	4	1	1
12	1	1	1	1	10	3	4	1	1
13	3	3	3	3	15	2	4	1	1
14	2	2	2	2	5	3	4	1	1
15	3	2	2	2	No response	2	2	1	1
16	3	2	1	4	15	3	4	1	1
17	1	1	1	2	10	3	4	1	1
18	1	1	2	1	No response	5	5	1	1
19	2	2	3	3	7	3	4	1	1
20	1	1	1	3	5	4	3	1	1
21	1	1	1	1	5	4	4	1	1
22	1	1	2	4	15	3	5	1	1
23	2	3	2	1	15	3	4	1	1
24	2	2	1	2	No response	2	3	1	1
25	1	2	3	3	5	2	3	1	1
26	3	3	4	4	7	4	5	1	1
27	2	2	2	3	10	3	3	1	1
28	4	2	2	1	No response	5	5	1	1
29	2	2	2	3	No response	3	3	1	1
30	2	2	3	3	4	3	3	1	1
31	1	3	1	3	No response	3	4	1	1
			Mean Time (in Min.):		6.3				

Score	Is there any indication that students could have incorrectly perceived the CMS to be a form of quiz or test?	Is there any indication that your students were motivated to "please you" with their responses?	Is possible that your students were influenced by responses of their peers?	Is possible that your students interpreted some responses to be more favorable than others based on your introduction to the task?	Score	What was your response to the CMI (in Feb.)?	What was your response to the CMI (in May)?	Score	Did knowledge of your CMI influence your future planning and methodological approach?	Do you think it is helpful for a teacher to be able to measure motivation as a class?
None	12	9	11	10	Negatively surprised	0	0	Yes	26	26
Unlikely	8	12	9	4	Somewhat negatively surprised	5	1	No	0	0
Likely	5	5	5	9	Results were as expected	14	6			
Certainly	1	0	1	3	Somewhat positively surprised	5	13			
					Positively surprised	2	6			

Case	Question 1:	Question 2:
1	Because I told them it wasn't a quiz.	Because students no need to write name.
2	I told them it was only research.	No need to write their names on it.
3	I told them it was only research.	Because they didn't need to write their names.
7	I told them it was only a questionnaire beforehand	I told them that it was not considered as a test mark
8	The first time in Feb., they don't know the meaning of the questionnaire correctly without teacher's explanation	They can guess the answer but they are very shy. If the teacher says' please you' they will answer it. (teacher misunderstood question)
9	I told them that it was only a questionnaire before distributing it.	It's just a questionnaire
12	It is because they see the translation in these criteria.	It is because my students are not used to please me, they seldom pretend in front of me.
13	Because I didn't explain the form in detail, students chose the choices in a mess.	Sometimes students can get the target but they lack confidence, so when they are motivated they will try to do it.
14	It was obvious that it was a questionnaire	no comment
15	no comment	no comment
16	Yes, they have incorrectly perceived the paper to be a form of quiz because I seldom ask them to complete anything like this.	No we usually say "please" in daily conversation they would not be motivated by this. (teacher misunderstood question)
17	I told them beforehand it was not a test	There was no need for them to write their names on the criteria.
18	no comment	no comment
19	Most of them are used to my teaching style and they understand that it is just a kind of questionnaire	They will not do that because they always tell me the truth and their own real feelings.
20	I have informed them it's only a questionnaire beforehand	no comment
21	I told them that it was neither a quiz nor test.	They knew that it was just a questionnaire
22	I told them before	I told them I would adjust my teaching according to their feedback.
23	Because they read through everything in detail and ask questions if they didn't know clearly.	Yes, because some of them really wanted to learn English.
24	They know the purpose of the questionnaire.	no comment
25	Because I explained the questionnaire to them that it is not a quiz.	Because they don't always please me.

Case	Question 1:	Question 2:
26	Most of them understand that it is only a questionnaire	They didn't need to please me because they believe that they have the ability.
27	no comment	no comment
28	I told them before they did it.	Students might have known that I was expecting good results.
29	no comment	no comment
30	They know well what it is.	Because the teacher asked them to tell the truth, and they don't think it is necessary to do that.
31	I told them I'm going to give them a questionnaire before showing the paper.	Some of the students told me that "they know what to choose"
Case	Question 3:	Question 4:
1	Because I told them don't ask your classmate.	Because I didn't explain
2	Because I walked around and told them it is private for themselves.	I just passed it out and didn't tell them anything.
3	I looked at them.	I gave them to do it by themselves.
7	They are not sitting together	I didn't give any explanation.
8	They respect the others, they will think about whether their classmate's idea is good or not.	Yes, because all of their ideas are positive.
9	Their desks are separated.	No explanation was given.
12	I have given clear instructions that they have to cover their work.	I'm sorry that I didn't give an introduction, as I wanted them to understand the task on their own.
13	Sometimes students are not confident to believe they are correct, so they will rely on what their classmates say as what is right.	When students know more information they would like to speak and share with others.
14	I told them to finish it individually.	I try not to give too much information about that before they fill it in.
15	no comment	no comment
16	No, they think this is a test so they dare not look at each other's paper	They may have interpreted D and E because they know these are correct for their experience.
17	I told my class to complete the criteria all by themselves.	No, I didn't give them any instruction.
18	no comment	no comment

Case	Question 3:	Question 4:
19	Some of them do not share their own opinions and are easily influence by their peers	Nowadays, teenagers are brought up for the material world. Everything they can see is just money.
20	no comment	no comment
21	I told them that it was private for them.	I did not explain any more.
22	I strongly requested they did it on their own	Some listened to my explanation more clearly
23	Because they did it on their own.	Because I wanted to get honest opinions.
24	no comment	no comment
25	Because they learn from each other even though some of them are quite weak.	As the task needed creative thinking, they respond more frequently.
26	They are not influenced by their peers because I told them to do it by themselves.	I only told them to fill in the answers accordingly to their opinions.
27	no comment	no comment
28	I told them to do it individually and I would not mark them.	I told them that I would like to get real responses.
29	no comment	no comment
30	Some students were influenced by their peers when they are in two minds.	no comment
31	They did it on their own.	Some of the students may choose some favorable because they think it's better for my result.

Case	Question 5:	Question 6:
1	Because their thinking is reasonable	No comment
2	Actually I know my students' learning is so slow.	After, I changed my teaching methods; most of my students were more active than before.
3	I think the results were ok.	I think the results were quite good.
7	Students have more interest in learning. They become more energetic and eager to learn.	It is because I can see if it is succeeds to motivate the students to learn.
8	They didn't feel English is interesting.	They are very interested in learning English and they can speak in English in their greeting.
9	Through observation, their level and feeling are expected.	Through observation and outcomes, students are much more positive in class.
12	If the CMI's result has been changed or unchanged will also change the teaching method by discussing with other English teachers. Find out more information about teaching good English class.	We can compare with those who aren't motivated in English class.
13	Students didn't understand the task; many put a tick for all parts.	no comment
14	Their answers were not too extreme.	There is improvement in their language learning shown in it.
15	The students were passive in their learning.	The students changed their attitudes.
16	In the class or test, my students have told me they enjoy English, but from their responses I question this.	Students understand how to do it, so they can choose only points that are more suitable for them.
17	Results were as expected.	Somewhat positively surprised.
18	For example, if students respond they can live without English, I will try to find a way to change their mind and encourage them to be motivated to learn English.	It helps teachers to improve the learning environment and methodology.
19	No doubt of my students.	More than I expected for the increasing result.
20	no comment	no comment
21	Their thinking is reasonable.	Their thinking is reasonable again because they like learning English more than before.
22	All statements are true to our students.	I am happy because I've really changed my teaching methodology.
23	Fairly good because I expect more from them.	I feel better because they showed progress
24	no comment	I thought they all thought English is very important but the results are quiet different as I imagined.

Case	Question 5:	Question 6:
25	Their motivation is low and I decided to raise their interest.	I feel encouraged when I saw more students responded with interest though the score was lower.
26	Their performances are higher then my expectation.	As about.
27	no comment	no comment
28	They indicated something I want to know.	Their responses are much better then I expected.
29	no comment	no comment
30	I think that was their reflection previously, before I improved my teaching methodology	I expected to have a little bit high and it just the case like that.
31	The index is 10.7 which is medium.	They showed their improvement in classes and in the result of the index.
Case	Question 7:	Question 8:
1	No comment	No comment
2	Yes, from my teaching methods have changed till now my students' are interested in learning English. Most students enjoy their English lesson very much because I make more activities in the lesson, English group work, discussion, role-play…	Because motivation is a very important thing in the class, if students are interested in the beginning of the lesson I can go easy.
3	I can give them more chances to speak inside and outside the classroom.	I can change to increase the students' interest.
7	No comment	No comment
8	In methodology, I will focus more on speaking, use more activities and use more topics which are connected to their daily lives.	It is a real number to let us know in what way our teaching may be successful; need to change and encourage us to continue using the new method.
9	They have self-motivation, are eager to use and speak English, are active in class.	There is more involvement in the lessons.
12	Whether the CMI's results are changed or not I would change the teaching method by discussing with other English teachers and find out more information about a good English class.	We can compare with those who are not motivated in English class.
13	The survey shows the teacher what the students want to face about English. It shows they can't imagine themselves outside their present situation so I think that motivating them to speak is very important.	Yes. After this survey, I used more group tasks to motivate my students.
14	More innovative methodologies will be introduced into the language classroom. According to preference of the students, I will design activities for my lessons which better suit the students.	Having data can help the teacher to design and assess lessons more appropriately.
15	The methodological plan would include more group work.	Yes because it can increase my understanding of my students.
17	I'll design more activities for them.	Yes, it can arouse students' motivation.

Case	Question 7:	Question 8:
18	For example, if the students respond they can live without English, I will try to find a way to change their mind and encourage them to be motivated to learn English.	It helps teachers to improve the learning environment and methodology
19	It makes me know clearly on planning a lesson which can motivate them more and they like more	Yes, it can help teachers know what their students are interested in and what kind of activities that they are willing to participate in.
20	Students love to learn through activities.	It helps teachers to understand what their students are expected to learn during English lessons.
21	It can help teachers to plan the teaching in the future.	It can help teachers understand what the students think about the English.
22	Set the long term goals. Used different tasks and group work to motivate students. Student-centre approach.	I may adjust my teaching accordingly to students motivation
23	It helps me to reach for new ideas and find better ways of teaching. "Knowledge is Power" learn to be a knowledgeable teacher and use powerful and good tools.	Because it helps to understand ourselves as well as our students. We can improve ourselves.
24	I think I would prepare materials that better meet my students need in future.	It will help teachers to make changes in their own teaching.
25	After the course, I was introduced to many other teaching methodologies for English teaching. I have applied some into my teaching.	If you don't know how students are motivated, you don't know how to teach students and don't know whether they like your lessons.
26	The index makes me to provide interesting activities for my students in learning English.	Yes, it can make me understand my teaching method must fit for my students.
27	no comment	no comment
28	From the index I can know the students' motivation in learning. To pinpoint students' motivation. I can design some activities to arouse them.	It will help teachers to find out some ways to motivate students. It can tell that it's the students' motivation that affects them to learn or some other factors.
29	no comment	no comment
30	I'll adjust my future teaching and methodological approach so as to motivate students in learning English and to make them feel English is so important in the current situation.	Very helpful in understanding the students needs and thoughts.
31	It is a good indicator of students' motivation.	no comment

A6 Primary & Secondary[20] Pre and Post CMI Results

Primary Data By Class

Case #	Grade	# Stud.	A		B		C		D		E		F		G		H		I		J		K		L		Pre Mot. Index	Post Mot. Index
			Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post		
3	P3	34	22	18	20	20	28	28	24	28	30	31	19	25	1	3	0	0	1	0	1	0	2	1	1	0	11.5	16.2
12	P3	52	45	38	50	40	18	32	36	50	27	49	31	40	10	11	6	4	0	0	0	0	4	2	1	0	8.7	16.7
18	P3	46	26	29	35	37	38	45	32	38	37	41	29	33	2	2	5	5	4	3	3	2	5	3	0	2	10.6	16.0
1	P4	36	20	18	22	22	27	26	26	27	28	30	17	25	2	2	1	0	1	1	2	1	1	0	1	2	10.8	14.6
16	P4	44	13	22	29	27	25	33	15	32	29	23	14	25	15	11	12	2	2	4	2	2	6	2	15	3	4.6	11.5
17	P4	50	20	35	31	35	41	45	33	35	38	42	22	35	11	5	6	5	13	5	2	1	9	5	3	2	8.4	14.6
2	P5	36	22	18	17	24	25	25	11	14	21	24	12	15	9	2	4	2	6	0	0	0	3	0	6	2	6.1	10.8
7	P5	44	17	21	28	30	33	36	35	39	36	40	30	34	8	5	6	4	7	3	7	3	5	3	5	3	8.9	15.5
8	P5	45	31	26	32	33	30	37	31	22	32	39	33	23	4	19	17	3	8	9	3	4	17	6	7	5	6.5	11.0
13	P5	46	26	26	25	24	39	35	22	23	35	28	19	24	22	3	15	2	9	1	6	1	13	3	14	2	5.0	11.2
20	P5	37	12	9	27	32	29	30	21	12	28	30	21	28	0	3	1	1	1	3	0	0	0	1	1	0	10.5	13.8
9	P6	51	36	47	45	51	36	48	35	51	21	40	27	50	6	0	8	0	7	3	5	0	6	3	5	3	7.5	18.7
14	P6	52	25	23	29	40	51	52	39	48	33	40	29	50	8	5	3	0	4	4	1	0	6	5	4	2	9.6	17.3
15	P6	28	13	15	15	20	16	15	21	16	12	16	13	16	2	3	1	2	4	0	0	1	0	1	3	2	8.0	11.1
21	P6	26	7	5	11	20	20	23	5	5	18	20	5	17	1	3	0	0	0	0	0	0	1	4	2	2	7.9	11.6
		627	**335**	**350**	**416**	**455**	**456**	**510**	**386**	**440**	**425**	**493**	**321**	**440**	**101**	**77**	**85**	**30**	**67**	**36**	**32**	**15**	**78**	**39**	**68**	**30**	**8.3**	**14.0**
	Actual %:		50	52	62	68	68	76	57	65	63	73	48	65	15	11	13	4	10	5	5	2	12	6	10	4		

Average class size: 41.8

Secondary Data By Class

Case #	Grade	# Stud.	A		B		C		D		E		F		G		H		I		J		K		L		Pre Mot Index	Post Mot. Index
			Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post		
19	S1	33	10	11	14	12	23	27	8	15	17	20	10	16	14	10	6	5	3	3	1	1	1	1	5	3	6.4	9.6
26	S1	35	12	18	13	34	26	34	12	28	20	28	15	21	12	3	8	2	6	3	6	4	5	3	7	2	6.2	14.5
31	S1	40	15	13	26	23	36	32	22	18	31	30	13	18	13	1	1	1	10	1	3	1	1	2	1	1	10.7	11.5
25	S2	44	10	13	17	21	35	37	19	13	36	37	15	13	24	22	8	16	13	12	5	5	2	5	9	8	7.5	6.8
23	S3	35	16	14	30	29	30	30	11	11	34	34	34	34	4	1	0	0	6	6	2	2	4	2	5	3	14.4	15.0
24	S3	57	20	22	37	40	36	42	25	46	35	35	12	23	12	7	5	5	8	7	3	3	4	3	7	6	7.5	10.9
29	S4	60	17	6	26	27	43	59	25	28	44	54	15	24	18	11	5	1	9	10	0	0	4	1	3	2	8.6	11.7
30	S4	49	26	20	38	36	40	42	28	20	22	26	20	24	40	28	12	10	6	5	8	8	12	10	10	6	6.7	8.0
22	S5	62	10	21	27	30	54	60	23	38	48	55	20	32	24	18	4	2	12	13	1	2	2	2	7	6	8.9	12.3
27	S5	58	17	6	26	27	43	59	25	28	44	54	15	24	18	11	5	1	9	10	1	0	4	1	3	2	8.8	12.1
28	S6	58	14	13	47	50	45	51	41	42	38	47	38	34	11	5	9	5	10	4	8	7	9	6	8	5	11.1	13.1
		531	**167**	**157**	**301**	**329**	**411**	**473**	**239**	**287**	**369**	**420**	**207**	**263**	**190**	**117**	**63**	**48**	**92**	**74**	**38**	**33**	**48**	**36**	**65**	**44**	**8.8**	**11.4**
	Actual %:		31	30	57	62	77	89	45	54	69	79	39	50	36	22	12	9	17	14	7	6	9	7	12	8		

Average class size: 48.273

[20] Note: The data for three secondary classes (cases; 32, 33, and 35) are not included in the results due to incomplete collection processes (e.g. the teacher only reported Post CMI results without the Pre CMI results).

A6.1 CMI Pre & Post survey responses and medians for each statement reported as a class percentage[21]

			A		B		C		D		E		F		G		H		I		J		K		L	
Case No.	Grade	No. Stud.	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
3	P3	34	65	53	59	59	82	82	71	82	88	91	56	74	3	9	0	0	3	0	3	0	6	3	3	0
12	P3	52	87	73	96	77	35	62	69	96	52	94	60	77	19	21	12	8	0	0	0	0	8	4	2	0
18	P3	46	57	63	76	80	83	98	70	83	80	89	63	72	4	4	11	11	9	7	7	4	11	7	0	4
1	P4	36	56	50	61	61	75	72	72	75	78	83	47	69	6	6	3	0	3	3	6	3	3	0	3	6
16	P4	44	30	50	66	61	57	75	34	73	66	52	32	57	34	25	27	5	5	9	5	5	14	5	34	7
17	P4	50	40	70	62	70	82	90	66	70	76	84	44	70	22	10	12	10	26	10	4	2	18	10	6	4
2	P5	36	61	50	47	67	69	69	31	39	58	67	33	42	25	6	11	6	17	0	0	0	8	0	17	6
7	P5	44	39	48	64	68	75	82	80	89	82	91	68	77	18	11	14	9	16	7	16	7	11	7	11	7
8	P5	45	69	58	71	73	67	82	69	49	71	87	73	51	9	42	38	7	18	20	7	9	38	13	16	11
13	P5	46	57	57	54	52	85	76	48	50	76	61	41	52	48	7	33	4	20	2	13	2	28	7	30	4
20	P5	37	32	24	73	86	78	81	57	32	76	81	57	76	0	8	3	3	3	8	0	0	0	3	3	0
9	P6	51	71	92	88	100	71	94	69	100	41	78	53	98	12	0	16	0	14	6	10	0	12	6	10	6
14	P6	52	48	44	56	77	98	100	75	92	63	77	56	96	15	10	6	0	8	8	2	0	12	10	8	4
15	P6	28	46	54	54	71	57	54	75	57	43	57	46	57	7	11	4	7	14	0	0	4	0	4	11	7
21	P6	26	27	19	42	77	77	88	19	19	69	77	19	65	4	12	0	0	0	0	0	0	4	15	8	8
19	S1	33	30	33	42	36	70	82	24	45	52	61	30	48	42	30	18	15	9	9	3	3	3	3	15	9
26	S1	35	34	51	37	97	74	97	34	80	57	80	43	60	34	9	23	6	17	9	17	11	14	9	20	6
31	S1	40	38	33	65	58	90	80	55	45	78	75	33	45	33	3	3	3	25	3	8	3	3	5	3	3
25	S2	44	23	30	39	48	80	84	43	30	82	84	34	30	55	50	18	36	30	27	11	11	5	11	20	18
23	S3	35	46	40	86	83	86	86	31	31	97	97	97	97	11	3	0	0	17	17	6	6	11	6	14	9
24	S3	57	35	39	65	70	63	74	44	81	61	61	21	40	21	12	9	9	14	12	5	5	7	5	12	11
29	S4	60	28	10	43	45	72	98	42	47	73	90	25	40	30	18	8	2	15	17	0	0	7	2	5	3
30	S4	49	53	41	78	73	82	86	57	41	45	53	41	49	82	57	24	20	12	10	16	16	24	20	20	12
22	S5	62	16	34	44	48	87	97	37	61	77	89	32	52	39	29	6	3	19	21	2	3	3	3	11	10
27	S5	58	29	10	45	47	74	102	43	48	76	93	26	41	31	19	9	2	16	17	2	0	7	2	5	3
28	S6	58	24	22	81	86	78	88	71	72	66	81	66	59	19	9	16	9	17	7	14	12	16	10	14	9
		1158	A		B		C		D		E		F		G		H		I		J		K		L	
	Mdn. Pri.		56	52.9	62	71.4	75	81.8	69	72.7	71	81.1	53	70	12	9.62	11	4.55	8.7	5.88	4	2	11	5.88	7.7	5.56
	Mdn. Sec.		30	33.3	45	57.5	78	85.7	43	46.7	73	81	33	48.5	33	18.3	8.8	5.71	17	12.3	5.7	5.26	6.9	5.26	14	8.62

= Primary Data = Secondary Data

[21] Note: In each case percentages were derived by dividing the total number of responses to each statement (see A6) by the total number of students in each class then multiplying by 100.

A7 Results of the Wilcoxon Signed-Rank test statement by statement

	I feel learning English is important because my parents and friends tell me it is important.	I feel learning English is important because I don't want a bad grade.	I feel learning English is important because I can get a good job in the future.	I feel learning English is important because I can learn more information about the world.	I feel learning English is important because I can make new friends from different countries.	I feel learning English is important because I can share my ideas with more people.	I don't feel learning English is important because it takes too much work.	I don't feel learning English is important because other school subjects are more important.	I don't feel learning English is important because I can live happily without it.	I don't feel learning English is important because I have no use for it in the future.	I don't feel learning English is important because I will always live in Macao so Chinese is more important.	I don't feel learning English is important because I am Chinese. English isn't my language.
	A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**
z - Score PRIMARY	-0.031	-2.06	-2.20	-1.41	-2.16	-2.87	-0.94	-2.67	-1.96	-1.68	-2.27	-2.48
Direction of ranks	*Neg.(-)**	*Neg.(-)**	*Neg.(-)**	*Neg.(-)**	*Neg.(-)**	*Neg.(-)**	*Pos. (+)***	*Pos. (+)***	*Pos. (+)***	*Pos. (+)***	*Pos. (+)***	*Pos. (+)***
Asymp. Sig (2tailed)	0.975	0.039	0.028	0.158	0.031	0.004	0.345	0.008	0.050	0.093	0.023	0.013
Effect size (r) PRIMARY	-0.01	-0.38	-0.40	-0.26	-0.39	-0.52	-0.17	-0.49	-0.36	-0.31	-0.41	-0.45
*z - S*core SECONDARY	-0.46	-0.80	-2.40	-1.27	-2.43	-2.50	-2.93	-1.40	-1.96	-1.75	-1.36	-2.80
Direction of ranks	*Pos. (+)***	*Neg.(-)**	*Neg.(-)**	*Neg.(-)**	*Neg.(-)**	*Neg.(-)**	*Pos. (+)***	*Pos. (+)***	*Pos. (+)***	*Pos. (+)***	*Pos. (+)***	*Pos. (+)***
Asymp. Sig (2tailed)	0.657	0.424	0.017	0.203	0.015	0.013	0.003	0.161	0.051	0.080	0.173	0.005
Effect size (r) SECONDARY	-0.10	-0.17	-0.51	-0.27	-0.52	-0.53	-0.63	-0.30	-0.42	-0.37	-0.29	-0.60

* *Neg. (-)* = Post-Test response percentages > Pre-Test response percentages.
**Pos. (+) = Post-Test response percentages < Pre-Test response percentages.

Cohen's effect sizes	
r = 0.1	Small (explains 1% of total variance)
r = 0.3	Medium (explains 9% of total variance)
r = 0.5	Large (explains 25% of total variance)

A8 Teacher Survey of Participation

June 2004

Dear Teachers,

Since October 2003 you have been participating in an action research program to explore new methodologies for English teaching. We have focused on developing independent communication skills among the students, group consultation and problem solving tasks, use of realia in the classroom, the use of questioning skills and creation of integrated units of study in which all language skill areas are supported and enhanced. One of our goals was for English to become a language students have confidence using outside of the classroom.

I would appreciate your assistance in completing the below survey. Your feedback will give me important information for the development of this program. Please tick the appropriate response for reach questions and return this survey by the next class.

Thank you in advance for your cooperation.

1 = Disagree 2 = Somewhat disagree 3 = Somewhat agree 4 = Agree

	1	2	3	4
1. The materials presented in the course were appropriate for use in my classroom.	☐	☐	☐	☐
2. I believe that I can play a part in changing English language instruction in not only my school but in Macao.	☐	☐	☐	☐
3. I think it is good that teachers from different schools are working together to change language teaching.	☐	☐	☐	☐
4. I am happy with the changes that have been made in my language classroom .	☐	☐	☐	☐
5. I think more teachers could benefit from the program.	☐	☐	☐	☐
6. It was helpful to see what other teachers were doing.	☐	☐	☐	☐
7. I feel that making changes is necessary but not easy.	☐	☐	☐	☐
8. I felt respected as an equal partner in the design and execution of the language training project.	☐	☐	☐	☐
9. I felt that my opinions / suggestions / contributions were respected.	☐	☐	☐	☐

1 = Disagree 2 = Somewhat disagree 3 = Somewhat agree 4 = Agree

	1	2	3	4
10. I felt that working as an active member of the language team was helpful in my development as a teacher.	☐	☐	☐	☐
11. I felt that my contribution to the program was important	☐	☐	☐	☐
12. I felt my participation was valued.	☐	☐	☐	☐
13. I felt a great responsibility to assist in creating a communicative environment in my class.	☐	☐	☐	☐
14. I felt that teaching the students to listen to and respect each other was as important as developing their speech.	☐	☐	☐	☐
15. I felt encouraged when students attempted to speak to me using English outside of the class.	☐	☐	☐	☐
16. I feel that students are capable of learning a language without translation .	☐	☐	☐	☐
17. I feel the importance of using the target language (English) in my classroom.	☐	☐	☐	☐
18. I feel that it is important for students to have opportunity to communicate individually, in pairs and in small groups to solve problems or complete language tasks.	☐	☐	☐	☐
19. I feel it is important for students' speaking, listening, reading writing, questioning and thinking skills to develop simultaneously	☐	☐	☐	☐
20. I would like to continue making changes in my language class.	☐	☐	☐	☐

Additional comments (regarding my participation in the program):

A9 Classroom Observation Form

Teacher:_____ **School**:_____

Observ. Time: _____ **Level**:_____ **# Students**:_____ **Date**:_____

Teacher Directed Comm. _____/Min. % English _____

Student Directed Comm. **IND ☐ INDQ ☐ REC ☐ PRE ☐ INT ☐** % English _____

- Provides more opportunities for interaction between students and teacher in class.

- Encourages students' confidence in learning English, even outside of class

- Provides a relaxing atmosphere in class.

- Helps buildup students' confidence in learning English.

- Provides more group work for students.

- Both teacher and students use ALL English in class.

A10 Classroom Observation Data (Primary)

Teacher Case #	Teaching Level	# of Students	Teacher Directed Commun.(Min)[22]	% of English	Student Directed Commun.	% of English	Teacher Directed Commun.(Min)	% of English	Student Directed Commun.	% of English	Teacher Directed Commun.(Min)	% of English	Student Directed Commun.	% of English
1	P	36	30	50%	IND/REC	100%	20	80%	IND/INT	50%	15	100%	INT	100%
2	P	36	35	80%	IND	50%	25	100%	IND/INT	40%	10	100%	INT	100%
3	P	34	35	70%	IND	50%	20	100%	INT/REC	50%	10	100%	INT	80%
4	P	42	35	20%	IND	100%	20	50%	IND/INT	50%	10	80%	INDQ/INT	80%
5	P	27	35	40%	REC	100%	20	75%	IND	50%	15	100%	INT	80%
6	P	45	30	40%	REC	100%	25	75%	INT/PRE	50%	15	100%	PRE	100%
7	P	44	35	50%	IND	100%	30	50%	INT/PRE	50%	20	80%	PRE	100%
8	P	45	30	60%	IND	100%	20	60%	IND/INT	50%	10	80%	INT	80%
9	P	51	35	20%	IND	100%	20	50%	IND/REC	100%	10	50%	INT	100%
10	P	46	35	25%	IND/REC	100%	20	50%	REC/INT	60%	15	80%	PRE	100%
11	P	44	40	25%	REC	100%	25	50%	IND/INT	100%	10	80%	INT	100%
12	P	52	30	40%	IND	100%	30	60%	PRE	100%	20	100%	INT	100%
13	P	46	35	40%	IND/REC	100%	30	50%	IND/INT	50%	10	80%	INT	80%
14	P	52	30	70%	REC	100%	20	80%	IND/INT	60%	15	100%	INT	80%
15	P	28	35	50%	REC	100%	20	80%	REC/INT	50%	30	100%	PRE	100%
16	P	44	30	50%	REC	100%	30	50%	INT	30%	15	100%	INT	50%
17	P	50	30	50%	IND	80%	20	60%	IND/INT	50%	10	100%	INT	80%
18	P	46	30	40%	IND	100%	25	80%	INT/PRE	50%	20	100%	PRE	100%
20	P	37	30	20%	IND	80%	30	50%	IND	100%	15	80%	INT	100%
21	P	26	30	20%	REC	100%	20	50%	IND/INT	100%	10	80%	INT	100%
34	P	45	35	40%	REC	100%	20	60%	IND/INT	50%	20	100%	INDQ/INT	100%

IND = Individual; most of the time in response to the teacher's question
INDQ = Individual Questioning; on an individual basis students ask the teacher/class questions
REC = Recitation; Students read aloud / respond / or repeat as a class
PRE = Presentation; one-way communication (often memorized /read) before an audience
INT = Interaction; a more natural exchange among students and teacher involving active listening and response

	Obs. 1
	Obs. 2
	Obs. 3

[22] Primary classes on average meet for 45 minutes

A11 Classroom Observation Data (Secondary)

Teacher Case #	Teaching Level	# of Students	Teacher-Directed Commun.(Min)[23]	% of English	Student-Directed Commun.	% of English	Teacher-Directed Commun.(Min)	% of English	Student-Directed Commun.	% of English	Teacher-Directed Commun.(Min)	% of English	Student-Directed Commun.	% of English
19	S	33	35	25%	IND	80%	25	50%	INT/REC	60%	20	80%	INT	100%
22	S	62	25	10%	IND	80%	15	30%	IND/REC	50%	15	60%	PRE	100%
23	S	35	30	0%[24]	REC	100%	35	30%	REC/INT	60%	20	50%	PRE	100%
24	S	57	30	40%	IND/REC	100%	25	50%	IND/INDQ	60%	25	80%	PRE	100%
25	S	44	35	25%	IND	50%	20	50%	IND/INT	100%	10	80%	INT	80%
26	S	35	35	20%	IND	100%	30	50%	INT/PRE	50%	15	100%	INT	80%
27	S	58	25	30%	IND	100%	20	60%	INT	40%	10	100%	INT	80%
28	S	58	30	50%	REC	100%	35	60%	INT	30%	20	100%	PRE	100%
29	S	60	30	80%	IND	80%	40	100%	INT/PRE	40%	20	100%	INT	60%
30	S	49	25	90%	IND/REC	100%	20	100%	INT	50%	20	100%	INT	80%
31	S	40	30	40%	IND	100%	20	50%	INT	60%	15	80%	PRE	100%
32	S	39	30	40%	IND	80%	20	75%	IND/INT	30%	15	100%	PRE	100%
33	S	67	30	20%	IND	100%	20	50%	INT	50%	20	80%	INDQ/INT	80%
35	S	50	35	40%	IND/REC	100%	20	75%	INT	10%	20	100%	INT	50%

IND = Individual; most of the time in response to the teacher's question
INDQ = Individual Questioning; on an individual basis students ask the teacher/class questions
REC = Recitation; Students read aloud / respond / or repeat as a class
PRE = Presentation; one-way communication (often memorized /read) before an audience
INT = Interaction; a more natural exchange among students and teacher involving active listening and response

	Obs. 1
	Obs. 2
	Obs. 3

[23] Secondary classes on average meet for 50 minutes
[24] The teacher spoke Chinese only and wrote using English on the board.

A12 Format for planning an integrated unit

A Recipe for Planning an Integrated Unit:

Step 1: What are your going to teach?

We must begin by determining exactly what the (overall) focus of our plan is. So let's first start by defining the concept we wish to teach. A concept being a significant idea that relates to other significant ideas.

From this point we can brainstorm the different topics we would like to teach in each subject area. A topic can be regarded as a subset of a concept, a smaller section of content that specifies the various specifics of a significant idea.

Most likely you will generate more topics than can realistically be covered in one unit so it is important to determine those that are critical, that must be taught, the parts that cannot be compromised, if you are to be true to the content. Once your list has been edited to include only those topics that underlie, that must be taught for the rest to make sense... then you have your content and are ready for the next step.

Step 2: Identifying content relationships.

This aspect of the planning process could take the form of a mind map. What should emerge in this mind-map is a picture of the relationships inherent in the content. You can then begin to make some decisions about the scope of your unit and the sequence in which the content will be covered.

In making these decisions you must consider your understanding of your students' abilities – collectively and individually. Prioritize the content for each subject area. ... now let's move on to step 3.

Step 3: Where do we want our students to be...?

It is now time to envision what results we would like to see in our students. What will they know, when they have experienced this unit? What specific outcomes will result? Complete a list of learner objectives that you will be able to observe in results-oriented terms.

e.g. The students will be able to explain .....

Why do we need to think about outcomes before our units begin? This forethought process is important for maintaining focus in our teaching... we should see where we are going so that we can be the best guide.

Step 4: Identifying skills to revise and/or introduce.

As you think about the content you will be teaching and the activities you will be using, there may be particular skills that need to be taught or reviewed. It will be useful for you to complete another mind-map of skills you need to address as part of your instruction

Step 5: Creating "Activities Resource File"

We need now to have our content map/s in front of us so that we can begin in each subject area to brainstorm all the possible activities we could use to teach this unit (don't forget to refer to the skills map as well). Ideally you will generate many more activities than you can use... so then you can select the best to use in your actual unit plan. When compiling this list it is good to keep in mind activities that: are verbal and non verbal , appeal to both left and right brain learners (see list), will be appreciated by different learning styles....

Congratulations you now have everything you need to organise your content into presentation order.

The Unit Stages

IV **Creating a new Understanding through Application** (Left brain activity) to refine and analyze application for relevance, and usefullness (Right brain activity) to share and take pride in the learning	**I** **Setting the Stage with an Experience** (Right brain activity) to engage in the experience (Left brain activity) to reflect and analyze the experience
III Exploring the New Knowledge through Experimentation (Left brain activity) to try or practice with the content (Right brain activity) to extend the practice and apply it to a more complex experience	**II** **Seeing the Concept Clearly** (Right brain activity) to imagine or "picture" the concept (Left brain activity) to define, and systematically learn the concepts and skills (content)

Step 6: Stage 1: "Setting the Stage with an Experience."

Stage I; Right Mode

a) Describe the teaching objective (for each subject area)
b) Describe the activity/ies (for each subject area)
c) Describe the means for evaluation (for each subject area)

Stage I; Left Mode

a) Describe the teaching objective (for each subject area)
b) Describe the activity/ies (for each subject area)
c) Describe the means for evaluation (for each subject area)

Step 7: "Seeing the Concept Clearly"

Stage II; Right Mode

a) Describe the teaching objective (for each subject area)
b) Describe the activity/ies (for each subject area)
c) Describe the means for evaluation (for each subject area)

Stage II; Left Mode

a) Describe the teaching objective (for each subject area)
b) Describe the activity/ies (for each subject area)
c) Describe the means for evaluation (for each subject area)

Step 8: "Exploring the New Knowledge through Experimentation"

Stage III; Left Mode

a) Describe the teaching objective (for each subject area)
b) Describe the activity/ies (for each subject area)
c) Describe the means for evaluation (for each subject area)

Stage III; Right Mode

a) Describe the teaching objective (for each subject area)
b) Describe the activity/ies (for each subject area)
c) Describe the means for evaluation (for each subject area)

Step 9: "Creating New Understanding through Application"

Stage IV: Left Mode

a) Describe the teaching objective (for each subject area)
b) Describe the activity/ies (for each subject area)
c) Describe the means for evaluation (for each subject area)

Stage IV: Right Mode

a) Describe the teaching objective (for each subject area)
b) Describe the activity/ies (for each subject area)
c) Describe the means for evaluation (for each subject area)

Brain Hemisphericity

The three major premises:
1. Left and Right Mode processes are different.
2. Individuals favor different approaches to learning along the left to right continuum.
3. Both kinds of processing are equally valuable.

Left Mode	Right Mode
Verbal	Visual/Spatial
Defined/ Named/ Classified	Experiential/Contextual
Passive/ Receiving	Interactive
Stillness/Placing	Kinesthetic
Linear	Circular
Rational	Intuitive
Left Mode	Right Mode
Operates with Analysis	Operates out of Being
Uses language	Comprehends Images
Abstracts Experience	Seeks Patterns
Has Number Sense	Creates Metaphors
Is Sequential	Is Simultaneous

A13 Teachers' present status; 2007/2008 contact results

Case No.	Position During the Program (Academic Year 2003/2004)	Position After the Program (Academic Year 2007/2008)
6	P1 English language teacher in a Chinese medium primary school.	**Selected by DSEJ as a part-time member of the English language curriculum reform committee, in addition to teaching**
10	P1 English language teacher in a Chinese medium primary school.	**Presently a member of the school's English Panel, responsible for setting the English academic program**
4	P2 English language teacher in a Chinese medium primary school.	**Presently working as a teaching assistant in an international school**
5	P2 English language teacher in a Chinese medium primary school.	**Presently teaching P3 in an English medium school**
11	P2 English language teacher in a Chinese medium primary school.	**Presently a member of the school's English Panel, responsible for setting the English academic program**
3	P3 English language teacher in a Chinese medium primary school.	**Presently working as a P2 classroom teacher in an International school.**
12	P3 English language teacher in a Chinese medium primary school.	**Selected by DSEJ as a part-time member of the English language curriculum reform committee, in addition to teaching.**
18	P3 English language teacher in a Chinese medium primary school.	No response
1	P4 English language teacher in a Chinese medium primary school.	**Presently working as a teaching assistant in an international school**
16	P4 English language teacher in a Chinese medium primary school.	P4 English language teacher in a Chinese medium primary school.
17	P4 English language teacher in a Chinese medium primary school.	No response
2	P5 English language teacher in a Chinese medium primary school.	**Presently a member of the school's English Panel, responsible for setting the English academic program**
7	P5 English language teacher in a Chinese medium primary school.	**Presently teaching P5 in an English medium primary school**
8	P5 English language teacher in a Chinese medium primary school.	**Presently a member of the school's English Panel, responsible for setting the English academic program**
13	P5 English language teacher in a Chinese medium primary school.	P5 English language teacher in a Chinese medium primary school.
20	P5 English language teacher in a Chinese medium primary school.	No response
9	P6 English language teacher in a Chinese medium primary school.	**Selected by DSEJ as a part-time member of the English language curriculum reform committee, in addition to teaching.**
14	P6 English language teacher in a Chinese medium primary school.	**Presently a member of the school's English Panel, responsible for setting the English academic program**
15	P6 English language teacher in a Chinese medium primary school.	**Presently a member of the school's English Panel, responsible for setting the English academic program**
21	P6 English language teacher in a Chinese medium primary school.	**Selected by DSEJ as a part-time member of the English language curriculum reform committee, in addition to teaching.**
19	S1 English language teacher in a Chinese medium secondary school.	**Selected by DSEJ as a part-time member of the English language curriculum reform committee, in addition to teaching.**
26	S1 English language teacher in a Chinese medium secondary school.	**Presently teaching S1 in an English medium secondary school.**
31	S1 English language teacher in a Chinese medium secondary school.	S1 English language teacher in a Chinese medium secondary school.
25	S2 English language teacher in a Chinese medium secondary school.	**Selected by DSEJ as a part-time member of the English language curriculum reform committee, in addition to teaching.**
23	S3 English language teacher in a Chinese medium secondary school.	No longer teaching, presently working for an international corporation.
32	S3 English language teacher in a Chinese medium primary school	**Selected by DSEJ as a part-time member of the English language curriculum reform committee, in addition to teaching.**
29	S4 English language teacher in a Chinese medium secondary school.	**Presently working full-time for the DSEJ on revising the English language curriculum**
30	S4 English language teacher in a Chinese medium secondary school.	**Presently a member of the school's English Panel, responsible for setting the English academic program**

Case No.	Position During the Program (Academic Year 2003/2004)	Position After the Program (Academic Year 2007/2008)
22	S5 English language teacher in a Chinese medium secondary school.	S5 English language teacher in a Chinese medium secondary school.
28	S6 English language teacher in a Chinese medium secondary school.	S6 English language teacher in a Chinese medium secondary school.
33	S1 English language teacher in a Chinese medium primary school	**Selected by DSEJ as a part-time member of the English language curriculum reform committee, in addition to teaching.**
34	P2 English language teacher in a Chinese medium primary school	P2 English language teacher in a Chinese medium primary school
27	S5 English language teacher in a Chinese medium secondary school.	**Presently a member of the school's English Panel, responsible for setting the English academic program**
35	S2 English language teacher in a Chinese medium secondary school.	**Presently a member of the school's English Panel, responsible for setting the English academic program**
24	S3 English language teacher in a Chinese medium secondary school.	**Selected by DSEJ as a part-time member of the English language curriculum reform committee, in addition to teaching.**

Note: P = Primary school and S = Secondary school