

Project Title: Understanding interactions between language learning
motivation and medium of instruction

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Final Report

by

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Understanding Interactions between Language Learning Motivation and Medium of Instruction

Abstract

Language teaching effectiveness depends to a large degree on students' language learning motivation (LLM), and on the specific traits they bring to the classroom. Thus, effective development of language education in Hong Kong must necessarily include a basic understanding of the affective aspects of teaching and learning. This report was based on an extensive research study that sought to develop a comprehensive picture of the English language motivation landscape in Hong Kong secondary schools, examining motivations of students for learning English and the practices of teachers for motivating their students. Regarding students' LLM, an initial descriptive analysis revealed that the highest scores were for instrumentality promotion, followed by required orientation and then integrativeness. The statistics indicate similar motivational profiles across the three medium of instructions (MoI), with the exception that EMI students scored most highly on the required orientation, followed by the instrumental promotion orientation, while the reverse was true for MMI and CMI students. In a correlational analysis between LLM and personality traits, a close link was detected between openness to experiences, conscientiousness and LLM. Regarding the practices of teachers, teachers' use of motivational teaching strategy (MTP) is in association with students' LLM, yet the interactions between the two are not clearly displayed. Given such a vast repertoire of strategies, it is important for teachers to develop appropriate motivational practices, implementing strategies that respond to their learners' needs, motivations, learning style and context.

Keyword(s): English language; second language; motivation; personality; motivational teaching strategies

Introduction

Recent decades have witnessed the increasing spread of educational models delivering content teaching through learners' second language. Variations of this model include the Canadian immersion programs, the implementation of content and language integrated learning in parts of Europe and bilingual programs in the United States. Research examining the effectiveness of these developments has focused to a large degree on academic achievement with some consideration for factors such as academic interest or motivation. These models fall under the category of Content-Based-Instruction (CBI), as implemented in the Hong Kong context. Essentially these models all conform to a basic principle, namely the teaching of some or all non-language content subjects through the language students learn as an L2. Hong Kong presents a unique and interesting linguistic context which brings with it both challenges and opportunities for educators and policy makers. This proposal concerns itself specifically with the opportunities and challenges presented for language learning motivation, an area that has received surprisingly little research attention, where preference has been shown to measures of more general motivation.

The language education landscape of Hong Kong is an intricate one, having become more so following the fine-tuning policy that allows the opportunity for numerous linguistic permutations according to subject groups, time periods, needs and ability of students and teachers (Hoare & Kong, 2008). Essentially, however, three primary language education streams are available; English Medium of Instruction, Chinese Medium of Instruction and a combined model, with the first of these being commonly defined in Hong Kong as the *elite* educational stream. This context raises a number of questions of interest to educationalists and policy-makers alike, regarding the

provision of high quality education and equal educational opportunity for all Hong Kong students. Such questions relate also to the relative impact of the three streams on students' language learning motivation and language learning self-efficacy, and in turn their self-esteem. This project entailed a two-part study. Part one sought to examine the current situation in relation to language learning motivations exhibited by language learners across the three language streams, exploring the interplay between these motivations and different individual traits that learners bring to the classroom. Part two aimed to understand the ways in which outstanding language teachers seek to promote language learning motivation across these streams, the extent to which motivational strategies are influenced by the specific contexts, and the extent to which teacher awareness of learner traits present in their learners interact with teaching practices and learners' educational outcomes.

Literature review and conceptual framework

CBI and academic attainment

From a theoretical perspective, CBI arguably provides an optimal context for triggering a chain of linguistic events that would provide the necessary conditions for successful language development. Firstly, CBI provides learners with considerably more L2 input than is otherwise possible in more traditional models. Higher levels of input provide greater opportunity for interaction, output, corrective feedback and so on, thus creating a more effective language learning context.

A considerable amount of research has been conducted into the effectiveness of CBI in relation to achievement in language learning and content subject learning. Evidence has so far suggested that such models are beneficial for L2 learning while having no negative impact on academic

achievement in other subjects (Lazaruk, 2007). In the Hong Kong context, however, the effects of the medium of instruction are less clear with no conclusive research evidence available as to the respective advantages or disadvantages of English medium of instruction (EMI) and Chinese medium of instruction (CMI) (Lo & Lo, 2014). A recent meta-analysis of studies conducted in Hong Kong found that the effectiveness of CBI varied according to whether the variable of interest was content subject achievement or language learning achievement. The studies reviewed suggested that students in EMI schooling outperformed their CMI peers in English but underperformed in Chinese. In terms of other content subjects, however, the meta-analysis indicated no significant difference in Mathematics performance, but a significantly better performance on Science, Geography and History by CMI schooled students (Lo & Lo, 2014). Nevertheless, the evidence is not incontrovertible. Fung & Yip (2014) reported mixed results regarding the effect of MoI on conceptual assessment in Physics, with high ability students performing better through EMI, low ability performing better through Chinese and medium ability evidencing inconclusive results.

In part the lack of clear evidence may be due to the dynamic nature of the Hong Kong linguistic landscape that has undergone several changes and developments in quick succession. The most recent of these, the fine-tuning policy, constitutes a further change with possible impact on both cognitive and non-cognitive aspects of student learning. Within this evolving context, it is pedagogically significant to understand the motivations that students bring to the language learning classroom and the ways these motivations interact with other attributes in relation to language attainment, taking into consideration the teacher's role in this process.

Academic motivation

Research investigating academic motivation broadly differentiates between intrinsic and extrinsic motivation (Deci, Koestner and Ryan, 1999). Academic intrinsic motivation can be understood as engagement with academic activities for their own sake. Although previous research has suggested that these aspects of motivation can be considered opposites on the same continuum (Harter, 1981), implying that students cannot be equally motivated by each, recent research has proposed that students can exhibit aspects of intrinsic and extrinsic motivation simultaneously (Lepper et al., 2005).

Wentzel's (2000) work adds an extra dimension proposing that goals are intrinsically tied to culture and context, thus emphasizing the need to develop an understanding of the goal orientations of students engaged in language learning in the diverse multilingual Hong Kong context. Such studies provide useful insights into the factors that constitute general academic motivation that have also been examined in the context of CBI education but shown mixed results.

Further indication of a need to develop a better understanding of motivation in the Hong Kong context comes from research focusing on autonomy and its relationship to learner motivation. Parenting styles that grant high degrees of autonomy have been seen to be associated with Chinese students' social and school adjustment (Chen, Dong & Zhou, 1997).

The significance of context has been further underlined by recent studies in 'Confucian-heritage' contexts examining language learners in particular. Such research has outlined the potential explanatory power of a *required motivation* for understanding language motivation in these cultural settings. This affective variable is discussed below.

Self-efficacy

In a meta-analysis of 109 studies considering the power of psychosocial and study skill factors to predict academic outcomes, Robbins et al (2004) report academic self-efficacy and academic motivation to be the best predictors of ultimate academic attainment, overtaking socioeconomic status and previous academic attainment. Indeed, work undertaken in the field since then has tended to support this understanding. Self-efficacy refers to the belief or judgment an individual has about their ability to perform well in tasks or specific situations particularly when facing a difficult task (Schunk, 1991). It has been suggested that children with high self-efficacy show a preference for engaging with challenging learning activities (Boggiano et al., 1988). Furthermore, self-efficacy has been seen to significantly influence academic achievement (Zimmerman, Bandura & Martinez-Pons, 1992). In a recent study with adolescents, Caprara, et al., (2011) found that both academic self-efficacy and personality traits individually contributed significantly to academic achievement throughout school.

There is generally more research examining the relationship between self-efficacy and attainment than motivation (Boggiano et al., 1988), nevertheless student self-efficacy is likely to influence their motivation, but may be a better predictor of some aspects of motivation than others.

While studies in the CBI Hong Kong context have previously focused on self-concept, although not with reference to language learning, an investigation of students' self-efficacy arguably allows a further step forward. Self-efficacy is perhaps typically more closely related to specific areas of learning and even specific tasks.

Up to the present day, research in the Hong Kong context has typically focused on academic motivation and self-concept in general when looking at the effects of CBI on affective factors.

However, in relation to specific research in language learning, the complex relationship between affective factors and attainment is being seen as encompassing additional variables, discussed in turn below.

Coping

Linked to self-efficacy is the learner's approach to coping with academic stress. Coping approaches can be seen to mediate self-efficacy and personality and to be part of a two-way process impacting on and shaped by motivation. Previous research has argued that the challenges students confront in the process of education can have a negative effect on their motivation and performance (Amirkhan, 1998; Covington, 1993) and if prolonged and perceived as unmanageable can elicit helplessness (Abramson, Garber & Seligman, 1980), depression (Peterson & Barrett, 1987) and stress (Carver & Scheier, 1994). Furthermore studies have identified varying responses to academic stress. Folkman & Lazarus (1985) proposed two key approaches to coping with academic stress; Problem-Focused Coping (PFC) and Emotion-Focused Coping (EFC). Employing this framework, Struthers et al. (2000) examined the relationship between coping style and academic motivation and performance among undergraduate students. They found that, while academic stress positively co-varied with lower course grades, students engaging in problem-focused coping were likely to be more motivated and perform better than students who engaging in emotion-focused coping. Studies such as this highlighted the importance of understanding student tendencies and personalities such that support can be tailored to develop effective strategies for coping with academic stress.

While the concept of coping has not previously been applied to the language learning context, emergent evidence in other academic areas suggests that these are important mediating factors

impacting on both motivation and self-efficacy. In light of the relationship between motivation and academic attainment, it can further be hypothesized that students' coping approaches have an indirect relationship to academic attainment: exploration of this possible relationship would be an aim of this study.

Personality

Personality can be understood as a set of underlying traits that determine how an individual typically behaves, think and feels. One of the most widely recognized and used conceptualisations of personality is the 'Big Five' framework (Costa and McCrae, 1992). The framework proposes that individual differences in personality can essentially be explained through: extraversion, emotional regulation, openness to experiences and conscientiousness. The body of research examining the relationship between personality traits and academic attainment is extensive (e.g. Bratko et al., 2006; Busato et al., 2000). A recent meta-analysis of the field showed that conscientiousness was consistently most closely related to academic attainment, followed by openness to experiences and agreeableness, while emotional stability (neuroticism) and extraversion were often weakly or unrelated to academic performance (Poropat, 2009). The analysis indicated that the relationship between personality and academic performance was not due to shared links with intelligence. Rather it has been suggested that personality may be related to academic attainment because of positive traits that naturally promote academic learning (Medford and McGeown, 2012). Indeed, there is some evidence to suggest that self-efficacy and academic motivation mediate the relationship between personality and attainment (De Feyter, et al., 2012). The implication then is that personality may predict other factors commonly associated with academic performance, for example motivation. Although a fast growing area of

research, the relationship between personality and motivation has received more limited attention.

CBI and Language Learning Motivation

As a key predictor of language learning success, language learning motivation arguably lies at the heart of all the issues associated with CBI, given that learners' success with language learning will in turn impact strongly on their ability to successfully engage with subject learning. In order to fully understanding learners' language learning motivation and to be able to develop a complete model of language motivation for the Hong Kong context, there is a need also to examine the validity of existing theoretical models for language learning specifically.

In their meta-analysis of research carried out into the effects of CBI instruction, Lo & Lo (2014) outlined the affective variables that have been investigated. In relation to motivation the focus seems to have been primarily on applying achievement motivation or surface versus deep level motivation, also termed extrinsic and intrinsic motivation, to the language classroom context.

A handful of studies have considered the effects of CBI on motivation for learning English language across EMI and CMI schools, as they once were known. Education Bureau (2004, 2006) investigations have found that academic self-concept of English was significantly higher among students learning through the medium of English than those learning through Chinese. These studies also found significantly higher levels of interest in English learning among EMI students. In a large-scale, longitudinal study, Salili & Tsui (2005) applied the Expectancy-Values framework to investigate general academic motivation among students in CMI and EMI schools, as they were then known. In addition, the study examined students' self-efficacy for learning Chinese and English. Of particular interest to the present proposal, Salili & Tsui (2005) found

that the significantly more positive attitudes towards learning English that manifested among EMI students in the first two years of the three-year study had disappeared by the third year. Given the importance of self-efficacy for language learning motivation, such results point towards the need for closer investigation of specific motivation for language learning within a context-specific and dynamic framework.

Language learning motivation as situated and dynamic

Motivation has long been recognized as a direct determinant of academic achievement in general and Language learning achievement specifically. For this reason it has received considerable attention within the field of individual language learner difference. The origins of Language motivation research were such that the context was considered a key influencing factor. Language motivation research subsequently moved towards a more psychological conceptualization, placing the learners' internal processes at the heart of the research agenda. Nevertheless, Sridhar (1994) states that fundamental and extensive changes are needed in second language acquisition research and theory in order to obtain a more functionally oriented and culturally authentic approach, while Warden and Lin (2000) support this by adding that discussions of language teaching and learning should be shaped by considerations of context and culture. Such arguments are particularly relevant to Hong Kong where specific educational features of the context, such as the multiple linguistic streams and the exam orientation can be hypothesized to interact with learner traits such as language motivation, language self-efficacy and learners' mental toughness. To date there seem to be very few studies, and seemingly none in the Hong Kong, context that consider the interplay between student language learning motivation and the practices of their teachers. This is interesting considering the essential role that

motivation plays in language learning success and the potential the teacher has for promoting language learning motivation through appropriate pedagogies. Developing an understanding of learners' motivation is only one part of the jigsaw. The other essential component is to know how effective practitioners respond to this motivation and what forms that response takes in the classroom.

Teacher Preparedness for developing Language Motivation

Within the literature examining CBI models there have been increasing calls for the development of teacher education that prepares practitioners for teaching language and content more effectively, focusing particularly on the development of teachers' identity as language as well as content subject teachers and on their language awareness as a prerequisite for the task of delivering CBI (Coyle et al., 2010). The emphasis within these discussions has been primarily on the development of content subject teachers, with the assumption being that language teachers already have the appropriate theoretical and pedagogical tools and understanding. However, a consideration that seems to have been much overlooked is the extent to which teachers are aware of the ways in which the language stream impacts on their students' language learning motivation and the strategies they implement to develop learners' motivation.

In the last two decades, research has increasingly sought to propose ways in which understandings of motivation can be translated into pedagogical practice. However, only a handful of studies have adopted this focus and as such very little is known about the relationship between teachers' motivational practices and learners' motivation for language learning. Working with schools in South Korea, Guilloteaux and Dörnyei (2008) specifically examined the link between students' language learning motivation and their teachers' motivational teaching

practice, using questionnaires and a classroom observation tool. The researchers found that teachers' motivational practice was linked both to learners' increased motivated learning behavior as well as to their motivational state, allowing the study to draw useful pedagogical implications.

Studies such as these provide compelling evidence for the usefulness of exploring motivational language teaching strategies. However, such research has yet to be conducted in the Hong Kong context. It is important to understand the practices that teachers engage with in their classrooms, the extent to which they are aware of the types of motivations that drive their students and the ways in which their practices relate to student motivations.

Research questions:

Part 1:

1. What are the language learning motivations exhibited by Hong Kong learners for learning English?
2. In what ways can medium of instruction be seen to interact with language learning motivation?
3. In what ways do learners' motivations for language learning interact with personality traits?

Part 2:

4. What are the motivational strategies used by language teachers?
5. To what extent do teachers' motivational strategies vary between linguistic medium?

6. What relationships can be identified between teachers' motivational practices and learners' motivation for language learning?

Methodology

This paper proposed a two-part study.

The first part aimed to provide an understanding of the existing motivations for English language learning among secondary students in Hong Kong. Drawing on the data generated by part 1, the English language teachers of classes exhibiting high, medium and low motivation were identified across MoI grouping. This second part sought to document the motivational strategies used by the English language teachers and to understand their decision-making processes in deploying these strategies. Each part of the study were described in turn.

Part 1

In light of the lack of previous research on the effects of linguistic streaming on language learners' motivation and self-efficacy and their psychological preparedness for coping with these effects, part 1 sought to gain an understanding of these factors and the interplay between them.

Sample

Around 300 students were sampled each from years 1, 3 and 4 each across of 11 secondary schools representing the diversity of medium of instruction to a total of 3,512 students. These years were selected as the beginning, middle and senior secondary school in order to provide insight into possible shifts in motivation according to age, cognitive development and changing educational emphases as the students gets older.

Data collection

Questionnaire

There is a strong precedent for the use of questionnaire to examine the affective variables identified in this project, both in the field of psychology and the field of language learning motivation.

Following the due ethical procedures, a paper questionnaire was administered to participants at the beginning and end of the school year 2016/17. The development of this questionnaire was based on Gardner's (2004) work. In order to allow for data to be gathered across schools at the same time and to increase respondent rate, paper copies of the questionnaire were delivered to the schools at around the same time and administered by class teachers. While administering the questionnaire, two research assistants were walking around the classrooms to provide immediate support when necessary. Instructions were clearly explained to students in their first language Chinese. With the paper questionnaire collected, the data were entered into SPSS 24.0 for further analysis.

Interviews

From each year group and within each MOI bracket, 8 students (2S1, 2S3 and 4S4) were selected for interview, totaling 72 students. Examination of questionnaire responses identified participants to be invited for interview.

The interviews were intended to provide the opportunity for a richer understanding of the nature of learners' motivation for language learning. Including a qualitative element would enable deeper exploration of any particularly unexpected results that emerge from the quantitative data

analysis, and in general it facilitates learners' expression of their own unique motivational histories (e.g. Ushioda, 1994). Including such an element within the overall methodological approach is particularly crucial for this current study, given the intention of allowing to emerge any unforeseen motivational trends in this particular context that may not be effectively explained by existing L2 motivational models.

Instruments

A two-part questionnaire has been developed to include in part 1 measures of language learning motivation, language learning self-efficacy, coping approach and academic motivation; part 2 the five-factor personality inventory. The two parts of the questionnaire were adapted from previous research examining the effects of these variables on academic success and contained a total of 125 items.

The questionnaire also gathered background data on the students to include among other variables gender, the medium of instruction in which they were studying across subjects, age.

The questionnaire has been provided in bilingual (English and Chinese) version, having been piloted to ensure that the items are comprehensible to the age and ability range to be included in the sample.

Analysis: Following appropriate coding, data generated in part 1 was analysed in different stages.

Stage 1: An initial descriptive analysis was conducted to identify trends and patterns in the data.

Stage 2: The next stage used ANOVA to investigate for differences between teachers in terms of the kinds of strategies they use.

Stage 3: A factor analysis has been conducted to allow for the examination of the relationships

between variables within the factors in order to understand the robustness of these variables for measuring the construct of language learning motivation.

Stage 4: Canonical correlational analysis was used to investigate the relationship between motivational variables and personality traits.

Stage 5: The final stage of analysis employed a stepwise regression to ascertain the relative contribution of the independent variables to explain learners' motivation. This would allow for an examination of the relative role that the identified independent variables play in students' language learning motivation, as stepwise regression offers the possibility to see relative sizes of the effect of the independent variables on the dependent variables.

In light of the fact that existing theories of language learning motivation are being called into question for their inadequacy in accounting for culturally diverse contexts, the analysis of interview data has adopted a grounded approach. Rather than imposing existing frameworks that may distort the accounts provided, the analysis broadly adopted the stages of grounded theory (Corbin & Strauss, 2008), involving coding (identification of anchors, allowing gathering of key data points), conceptualizing (collection of codes to allow grouping of data), categorizing (broad grouping of concepts to allow theory generation) and theorizing (systematic organization of categories to explain the phenomenon). Following this stage, the analysis would move to examine the extent to which the theorized understanding of motivation can be seen to relate to existing theories of language learning motivation.

Part two

Part two of the study seeks to develop an understanding of the motivational strategies used by

teachers in order to inform current practices more widely and to further an evidence-based practicum in language teaching.

Sample

Following analysis of the student data, 12 English language teachers were selected. These teachers were those of the classes exhibiting the highest, middle and lowest levels of English language learning motivation. The teacher sample has been stratified by medium of instruction of the school.

Data collection

Each teacher was observed for a full cycle of teaching, using the structured Motivation Orientation of Language Teaching schedule (MOLT) (Guilloteaux & Dörnyei, 2008). The observation schedule was adapted from that developed by Spada and Fröhlich (1995) and implemented by Guilloteaux and Dörnyei (2008) in their study on motivational language teaching practices. Observing a full cycle would allow the opportunity for motivational teaching strategies to emerge across the range of activities and skills. Furthermore, observation of a full cycle would make the data less susceptible to the effects of one-off events or anomalies. Lessons have been observed by 2 RAs, thus the structured nature of the observations would allow for a degree of consistency across the two observers as well as providing the data necessary for an analysis of the relationship between teachers' motivational teaching practices and students' language learning motivations.

Observations have been video-recorded. The recordings were used to conduct a stimulated recall session in order to explore the decision-making processes they engaged with in deploying the

motivational strategies and the variables they believed influence their decision-making. This would be important for shedding light on the reasons for the deployment of given motivational practices and for understanding the classroom factors that impact on such decisions.

Analysis: Stage 1: An initial descriptive analysis was conducted to identify trends and patterns in the observation data.

Stage 2: The next stage used ANOVA to investigate for differences between teachers in terms of the kinds of strategies they use.

Stage 3: Correlational analysis has been used to investigate the relationship between teachers' motivational practices and students reported motivations.

Results and Discussion

Research questions:

Part 1:

1. What are the language learning motivations exhibited by Hong Kong learners for learning English?

The initial descriptive analysis revealed that students scored highest in instrumentality promotion, followed by required orientation and then integrativeness. A repeated measures ANOVA, with a Greenhouse-Geisser correction ($\epsilon = .75$), determined that student levels of LLM differed significantly across LLM constructs, $F(6.75, 39918.18) = 1815.30$, $p < .001$ (Hennebry & Gao, under review). Post hoc tests using a Bonferroni correction revealed that in all three MoI settings, levels of instrumental promotion orientation and required orientation were significantly higher than all other measures of their motivation, at $p < .000$ (Hennebry & Gao, under review).

Despite previous support for the relevance of the L2 self-system in explaining Chinese learners LLM (You and Dörnyei, 2016), the findings of the present study echoed those of Chen, Warden and Chang (2005) who also found that instrumental and required orientations more closely reflected the motivations of CHC learners in Taiwan.

2. In what ways can medium of instruction be seen to interact with language learning motivation?

This research question concerned the interaction between MoI and LLM. Multiple analysis of variance (MANOVA) allowed for exploration of the differences between the LLM constructs, across MoI. Descriptive statistics indicated similar motivational profiles across the three MoI, with the exception that EMI students scored most highly on the required orientation (3.37), followed by the instrumental promotion orientation (3.33), while the reverse was true for MMI and CMI students (Hennebry & Gao, under review). This is not surprising in that it reflects the reality that EMI students do have greater English language expectations imposed on them on which their progression through school depends (Hennebry & Gao, under review). It does, however, support the idea that LLM is responsive to contextual features (Hennebry & Gao, under review). The fact that the required and instrumental promotion orientations were the highest scales across the MoI settings, even though MMI and CMI learners do not experience the same English language requirements at school, arguably points to the influence on certain LLM constructs of the wider sociocultural context of Hong Kong that goes beyond MoI (Hennebry & Gao, under review).

	df	Mean Square	F	η^2	Sig.
Integrative Orientation	2	8.88	25.46	.014	.000
Instrumentality – Promotion	2	5.54	16.97	.009	.000
Instrumentality – Prevention	2	3.96	8.70	.005	.000
Ideal L2 Self	2	9.91	19.79	.011	.000
Ought-To L2 Self	2	3.96	9.35	.005	.000
Family Influence	2	1.01	2.24	.008	.106
Cultural Interest	2	9.67	14.29	.008	.000
Attitudes toward Learning English	2	3.84	6.24	.003	.002
Required Orientation	2	30.47	69.47	.037	.000

Table 1: Mean scores on Motivational scales across Medium of instruction.

3. In what ways do learners' motivations for language learning interact with personality traits?

Correlations were computed among 4 sub-scales of students' personality traits, 9 subscales of LLM, the scale of self-efficacy, academic motivation and coping strategy across 3,578 students (see Table 2). In line with Evans (1996) suggestions for the value of r , we distinguished between very weak ($r=.00-.19$), weak ($r=.20-.39$), moderate ($r=.40-.59$), strong ($r=.60-.79$), and very strong (.80-1.0) associations.

In the scale of extraversion, though the statistics showed that 10 out of 12 correlations were

significant and positive, the r value revealed all the correlational links were very weak, all below or equal to $r(3,578) = +.172$, $p < .000$, two-tailed. This indicates that introversion/extroversion is not a key factor in association to students' L2 motivation. This result is important to English teachers, particularly to teachers who hold the belief that extroverted students may exhibit higher language learning motivation.

In the scale of openness to experiences, the results revealed that 6 out of 12 correlations were statistically significant and were greater or equal to $r(3,578) = +.204$, $p < .000$, two-tailed. The strongest association was between openness to experience with coping strategies, $r(3,578) = +.279$, $p < .000$, followed by ideal-L2 self, $r(3,578) = +.259$, $p < .000$, self-efficacy, $r(3,578) = +.257$, $p < .000$, cultural influence, $r(3,578) = +.246$, $p < .000$, integrative orientation, $r(3,578) = +.240$, $p < .000$ and required orientation, $r(3,578) = +.204$, $p < .000$. A negative correlation was found between openness to experiences with parental influence, $r(3,578) = -.046$, $p < .01$.

Within the construct of openness to experience, it consists of students' imagination, curiosity, openness to different value systems, their appreciation of novelty and art, their receptiveness of their own and others' emotional states. Our findings on this construct indicate a close association between openness to experiences and L2 learning motivation, which echoed the past research findings on the importance of future vision, curiosity and openness of L2 culture to L2 learning motivation (e.g., Dörnyei & Chan, 2013). Given the possibility that personality can be influenced, we can suggest that this particular association merits further exploration as it supports the motivational benefits of promoting curiosity among learners. To truly engage these students, L2 teachers should employ strategies to enhance students' interest to the L2 culture and their openness to different value systems.

In the scale of conscientiousness, the results suggest that all the 12 correlations were statistically significant and were greater or equal to $r(3,578) = +.041$, $p < .02$, two-tailed. In measuring conscientiousness, we found its strongest association was with coping strategies, $r(3,578) = +.404$, $p < .000$, followed by self-efficacy, $r(3,578) = +.324$, $p < .000$, English learning attitude, $r(3,578) = +.276$, $p < .000$, academic motivation, $r(3,578) = +.267$, $p < .000$, integrative orientation, $r(3,578) = +.265$, $p < .000$ and ideal-L2 self, $r(3,578) = +.241$, $p < .000$. This result reveals a close association between conscientiousness and L2 learning motivation. The past research has validated conscientiousness as a key factor to academic achievement.

In the scale of emotional regulation, the results suggest that 10 out of 12 correlations were statistically significant and 3 correlations were greater or equal to $r(3,578) = +.215$, $p < .000$, two-tailed. In measuring extraversion, we found its strongest association was with self-efficacy, $r(3,578) = +.224$, $p < .000$, followed by coping strategy, $r(3,578) = +.223$, $p < .000$ and attitudes toward English learning, $r(3,578) = +.215$, $p < .000$. This suggests that emotional regulation particularly correlates with their self-efficacy, coping strategy and language learning attitudes. Average on Emotional Regulation scale showed that drastic emotional change is not likely to occur in students. Students can become angered or moved by their emotions, but they also have the capability to control and restrain the feelings. This result is important to students, which means when students have moderately or high emotional regulation, they will be more prepared when confronting with academic challenges or failures.

Part 2:

4. What are the motivational strategies used by language teachers?

The three class observations with each of the 12 Teachers from 6 Hong Kong secondary schools showed they used a combination of motivational strategies ranging from teacher discourse to group/pair work (Figure 1). In the 4 aspects of motivational strategies, teacher discourse is a most frequently used strategy (75.3%), followed by activity design (10.5%) and encouraging positive retrospective self-evaluation (8.5%) while the least used motivational strategy is pair or group work with only 5.7%.

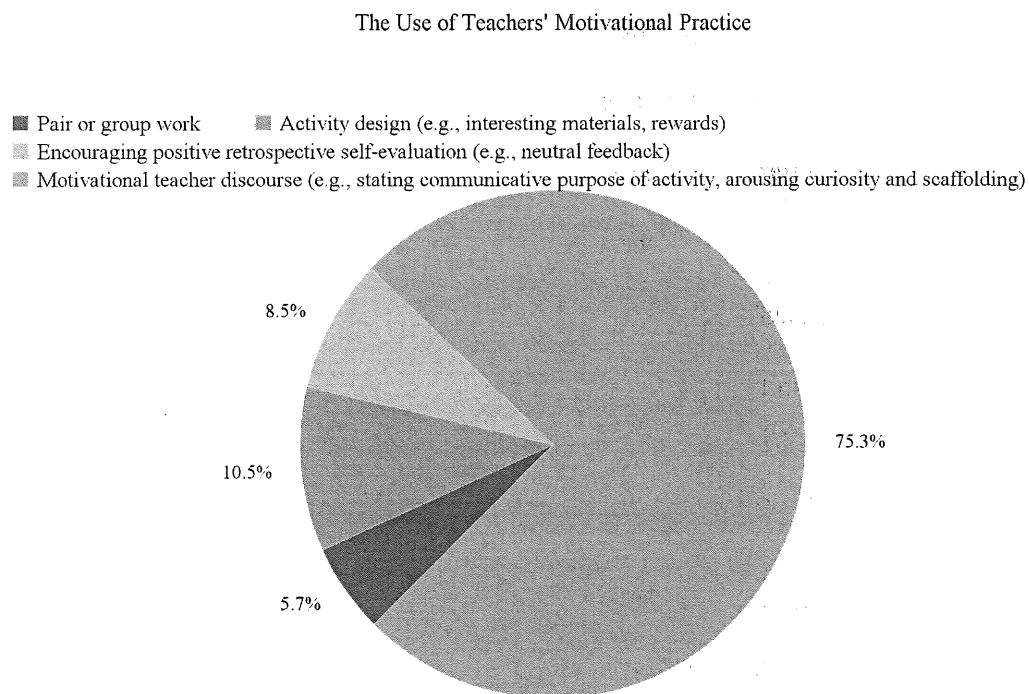


Figure 1.

This result indicated that there was a strong reliance on the use of teacher discourse. While motivational discourse is important, teachers should be aware that a wider context of heavy reliance on teacher motivational discourse is unlikely to foster a sense of learner autonomy or self-directed learning, which works against sustaining language leaning motivation. To further explore teachers' understanding of motivation, in the stimulated recall interview, teachers responded on the challenges of motivating the students, the most powerful de-motivators, the ways to motivate students and the most effective motivators. The excerpts presented in this report were considered to be representative of themes that emerged across the teacher interviewees.

On the challenges of motivating the students:

I think major challenges would include catering to learner diversity because we do streaming at school and at times with strong classes it's easier because most of them are of around the same ability but it's usually the mainstream classes where you have like a vast range of students' abilities and that's a major challenge (Teacher B (M), EMI).

The most difficult thing is that they don't have to use the language in their life. So they won't use it outside a classroom, outside the school. If they didn't practice to learn the language, then how can they learn it well? How can we teach them well? (Teacher D (M), CMI).

I guess it has something to do with their English capability when it comes to motivation. Secondly, I think it's the language environment, especially in Hong Kong, because maybe it has something to do with their socioeconomic background as well because they just don't have enough exposure to English outside the classroom (Teacher E (F), MMI).

On the most powerful de-motivators:

I think medium of instruction in English is important. I've been to schools where English lessons are conducted in Chinese. I think that defeats the purpose (Teacher B (M), EMI).

I think if something too challenging, if they feel incapable, they would give up and lose interest. That's one of them (Teacher C (F), CMI).

Sometimes students may find it very frustrating if they cannot follow the teachers and don't know how to do it and then they may give up (Teacher F (F), MMI).

On how to motivate the students:

I think it's extremely important to understand their strengths and weaknesses. You would need to let students know that you appreciate their efforts and you also know their strengths (Teacher A (F), EMI).

Because at the beginning, they don't know it and it takes some time to feel the bonding. And one of the motivations is the relaxation. They feel relaxed when they have a lesson with you. The bonding is very important (Teacher C (F), CMI).

In this way, in Hong Kong, students are motivated, especially for them; they are concerned about their results, the exam results. Maybe the practice is not interesting to them but they still are keen to learn the basic skills and they want to expose to the exam format (Teacher E (M), MMI).

On the most effective motivators:

I think the most important motivation for language learning would be their positive experience because this would be a strong class for sure but throughout my teaching career and teaching life here I have always been teaching the remedial classes and I have always been the remedial coordinator and I understand that when the students are not motivated to learn or when they feel upset about learning English mostly it comes from their failing experience in the past. (Teacher A (F), EMI).

Competitions, pre-learning, encouragement, their relationship with the teacher, and roommates (Teacher D (M), CMI).

They like challenges, I would just say “that question is particularly challenging, so if you are able to get it correct, normally you can get 1 mark, you can get 3 marks. They would just suddenly get really motivated because they think “it’s very challenging so if I get it correct, it can show that I’m very smart.” They get the sense of accomplishment in that way (Teacher E (F), MMI).

5. To what extent do teachers' motivational strategies vary between linguistic mediums?

Overall, MANOVA results showed that there was a significant difference in teachers' motivational strategies based on MoI, $F(12, 560) = 199.95$; *Wilk's Λ* = .036; *partial η^2* = .81. Post-hoc test was conducted to look at the differences between each variable. MTP was found significantly different between EMI and MMI ($p < .005$), and EMI and CMI ($p < .005$), but not between CMI and MMI ($p = .311$), where EMI teachers used significantly more MTP than CMI and MMI teachers. EMI teachers tend to use significantly more teacher discourse strategies than those in MMI schools ($p < .005$), while MMI teachers used significantly more than CMI teachers ($p < .005$). Significantly more participant organization strategies were used in EMI than CMI ($p < .005$), and significantly more in CMI than MMI ($p < .005$). For activity design, CMI teachers used significantly more than MMI ones ($p < .005$), MMI teachers have used significantly more activity design strategies in their lessons than EMI teachers ($p < .005$). In encouraging positive retrospective self-evaluation, there were significant differences between EMI and MMI ($p < .005$), and EMI and CMI ($p = .005$), but not in CMI and MMI ($p = 1$), where EMI is significantly higher than MMI and CMI.

In EMI group, a significant regression equation was found $F(3, 88) = 4.83$, $p < .005$ with an R^2 of .14. Participants' predicted LLM is equal to $3.93 + 0.021(\text{MTP}) + 0.002(\text{teacher discourse}) + 0.042(\text{encouraging positive retrospective self-evaluation})$, where MTP, teacher discourse and encouraging positive retrospective self-evaluation were coded as 1=strongly disagree, 2=disagree, 3=agree and 4=strongly agree. Students' LLM decreased 0.021 for each time of MTP use, while their LLM increased 0.002 for each use of teacher discourse and

0.042 for each use of encouraging positive retrospective self-evaluation. Encouraging positive retrospective self-evaluation was a significant predictor of LLM, with $p < .001$.

In MMI group, a significant regression equation was found $F(3, 88) = 6.61, p < .001$ with an R^2 of .18. Participants' predicted LLM is equal to $2.869 - 0.006(\text{teacher discourse}) + 0.065(\text{encouraging positive retrospective self-evaluation}) + 0.003(\text{participant organization})$, where teacher discourse, encouraging positive retrospective self-evaluation and participant organization were coded as 1=strongly disagree, 2=disagree, 3=agree and 4=strongly agree. Students' LLM decreased 0.021 for each use of teacher discourse, while their LLM increased 0.065 for each use of encouraging positive retrospective self-evaluation and 0.003 for each use of participant organization. Encouraging positive retrospective self-evaluation was a significant predictor of LLM, with $p < .001$.

In CMI group, a significant regression equation was found $F(3, 57) = 3.52, p < .03$ with an R^2 of .16. Participants' predicted LLM is equal to $3.30 - 0.058(\text{teacher discourse}) - 0.09(\text{encouraging positive retrospective self-evaluation}) - 0.22(\text{participant organization})$, where teacher discourse, encouraging positive retrospective self-evaluation and participant organization were coded as 1=strongly disagree, 2=disagree, 3=agree and 4=strongly agree. Students' LLM decreased 0.058 for each time of teacher discourse use, decreased 0.09 for each use of encouraging positive retrospective self-evaluation and decreased 0.22 for each use of participant organization. Participant organization was a significant predictor of LLM, with $p < .01$.

To conclude, for EMI and MMI group, most aspects of motivational teaching strategies contribute to the enhancement of students' LLM except teacher discourse to MMI group. Further, encouraging positive retrospective self-evaluation was a significant predictor of LLM in both EMI and MMI group. The reverse is true for CMI group, where we identified most aspects of motivational strategies negatively affect students' LLM.

6. What relationships can be identified between teachers' motivational practices and learners' motivation for language learning?

A multiple linear regression was calculated to predict LLM based on MTP, teacher discourse, participant organization, activity design and encouraging positive retrospective self-evaluation across three MoI groups.

Correlations were computed among 4 sub-scales of teachers' motivational practice (MTP) and 8 subscales of LLM across 3 MoI groups.

In EMI group, the results suggest that 11 out of 32 correlations were statistically significant and were greater or equal to $r(92) = +.23$, $p < .05$, two-tailed. In measuring the motivational practices of participant organization, we found this practice was strongly associated with language learning attitude, $r(92) = +.46$, $p < .01$, followed by integrative orientation, $r(92) = +.37$, $p < .01$ and ideal L2 self, $r(92) = +.23$, $p < .05$. Similarly, motivational activity design was also moderately correlated with language learning attitude, $r(92) = +.48$, $p < .01$, followed by integrative orientation, $r(92) = +.39$, $p < .01$ and ideal L2 self, $r(92) = +.24$, p

< .05. Regarding encouraging positive retrospective self-evaluation, the correlational result showed it was not only moderately correlated with language learning attitude, $r(92) = +.48$, $p < .01$, integrative orientation, $r(92) = +.41$, $p < .01$ and ideal L2 self, $r(92) = +.26$, $p < .05$, echoing the result of participant organization and activity design, but also it was weakly correlated with cultural interest, $r(92) = +.23$, $p < .05$. On the measures of teachers discourse, we found its significant correlation was only with students' instrumentality promotion with $r(92) = +.25$, $p < .05$.

In MMI group, the results suggest that 11 out of 32 correlations were statistically significant and were greater or equal to $r(92) = +.23$, $p < .05$, two-tailed. In measuring the motivational practices of participant organization, we found it was significantly correlated with required orientation, $r(92) = +.24$, $p < .05$. The motivational activity design was strongly correlated with students' integrative orientation, $r(92) = +.36$, $p < .01$, followed by attitudes toward English language learning, $r(92) = +.32$, $p < .01$, required orientation, $r(92) = +.26$, $p < .05$, cultural interest, $r(92) = +.24$, $p < .05$ and instrumentality promotion, $r(92) = +.24$, $p < .05$. Regarding encouraging positive retrospective self-evaluation, the correlational result showed it was strongly linked with integrative orientation, $r(92) = +.43$, $p < .01$, English learning attitude, $r(92) = +.37$, $p < .01$, required orientation, $r(92) = +.31$, $p < .01$ and instrumentality promotion, $r(92) = +.29$, $p < .01$. Results indicated an inverse relationship between teacher discourse and students' ideal L2 self, $r(92) = -.22$, $p < .05$ and require orientation, $r(92) = -.22$, $p < .05$.

In CMI group, the results suggest that 4 out of 32 correlations were statistically significant and were greater or equal to $r(61) = +.29$, $p < .05$, two-tailed. The motivational activity design was

moderately correlated with students' instrumentality prevention, $r(61) = +.30, p < .05$. Regarding encouraging positive retrospective self-evaluation, the correlational result showed it was strongly linked with cultural interest, $r(61) = +.55, p < .01$ and English learning attitude, $r(61) = +.37, p < .01$, required orientation, $r(92) = +.31, p < .01$ and instrumentality promotion, $r(92) = +.29, p < .05$. Results indicated an inverse relationship between teacher discourse and students' cultural interest, $r(61) = -.37, p < .01$; between participant organization and cultural interest, $r(61) = -.39, p < .01$ and English learning attitude, $r(61) = -.53, p < .01$; between activity design and cultural interest, $r(61) = -.47, p < .01$; between encouraging positive retrospective self-evaluation and instrumentality-promotion, $r(61) = -.27, p < .05$.

In general, the results suggested that the influence of MTP on students' LLM varied according to the MOI context. The most commonly used strategy was teacher discourse. This was seen to be positively associated with EMI students' LLM in instrumentality-promotion, but not in MMI students' ideal L2 self and required orientation, and CMI students' cultural interest, where there were negative associations.

Conclusions and Recommendations

This report was based on an extensive research study that sought to develop a comprehensive picture of the English language motivation landscape in Hong Kong secondary schools, examining motivations of students for learning English and the practices of teachers for motivating their students. Regarding students' LLM, an initial descriptive analysis revealed that the highest scores were for instrumentality promotion, followed by required orientation and then

integrativeness. The statistics indicate similar motivational profiles across the three medium of instructions (MoI), with the exception that EMI students scored most highly on the required orientation, followed by the instrumental promotion orientation, while the reverse was true for MMI and CMI students. In a correlational analysis between LLM and personality traits, a close link was detected between openness to experiences, conscientiousness and LLM. These results suggest that understanding the motivation of students is essential for helping them to achieve success in their language learning. To engage students in positive language learning behaviours outside the classroom, teachers need to understand what drives them to learn the language so we can tap into that.

Motivation is a key predictor of language learning success. Teachers can respond to students' motivations in their teaching pedagogy. Regarding the practices of teachers, teachers' use of motivational teaching strategy (MTP) is in association with students' LLM, yet the interactions between the two are not clearly displayed. Given such a vast repertoire of strategies, it is important for teachers to develop appropriate motivational practices, implementing strategies that respond to their learners' needs, motivations, learning style and context. Specifically, teachers can reflect on strategies that they have successfully used to motivate their students. Action research is also a practical tool enabling teachers to reflect on their motivational teaching practice (Burns, 2003:35).

A manual titled 'Motivating your students' has been developed as a tool to enhance the professional capacity of language teachers in the area of English as a second language (L2) teaching. It draws on the existing theories and research on L2 motivation, which serve as a

starting point to improve the quality of education. A copy of this manual has been mailed to around 430 Hong Kong secondary schools. The research study and this manual are the result of collaboration among the research team members. We are greatly indebted to the teachers and students who were the participants for the language learning motivation research in Hong Kong.

	LLM	IO	IPRO	IPRE	IS	OS	PE	CI	SE	ATLE	RO	AM	COP
extraversion	.099**	.135**	.046**	0.001	.172**	.096**	.055**	.131**	.157**	.155**	-0.001	.122**	.146**
openness to experiences	.145**	.240**	.160**	0.027	.259**	.097**	-.046**	.246**	.257**	.171**	.204**	.167**	.279**
conscientiousness	.193**	.265**	.148**	.119**	.241**	.141**	.041*	.110**	.324**	.276**	.196**	.267**	.404**
emotional regulation	.083**	.157**	.058**	-0.026	.162**	0.01	-.083**	.084**	.224**	.215**	.094**	.108**	.223**

Table 2: Pearson correlation on LLM and personality traits in 3,578 students.

Note: IO= Integrative Orientation; IPRO= Instrumentality – Promotion; IPRE= Instrumentality – Prevention; IS= Ideal L2 Self; OS= Ought-To L2 Self; PE= Parental Encouragement/Family Influence; CI= Cultural Interest; SE= Language Learning Self-efficacy; ATLE= Attitudes toward Learning English; RO= Required Orientation; MOI= Medium of Instruction; AM= Academic Motivation; COP= Coping.

REFERENCE:

Amirkhan, J. (1998). Attributions as predictors of coping and distress, *Personality and Social Psychology Bulletin*, 24, 1006-1018.

Boggiano, A. L., Main, D. S., & Katz, P. A. (1988). Children's preference for challenge: The role of perceived competency and control. *Journal of Personality and Social Psychology*, 54, 134-141.

Bratko, D., Chamorro-Premuzic, T., & Saks, Z. (2006). Personality and school performance: Incremental validity of self- and peer-ratings over intelligence. *Personality and Individual Differences*, 41, 131-142.

Busato, V. V., Prins, F. J., Elshout, J. J., & Hamaker, C. (2000). Intellectual ability, learning style, personality, achievement motivation and academic success of psychology students in higher education. *Personality and Individual Differences*, 29, 1057-1068.

Caprara, G. V., Vecchione, M., Alessandri, G., Gerbino, M., & Barbaranelli, C. (2011). The contribution of personality traits and self-efficacy beliefs to academic achievement: A longitudinal study. *British Journal of Educational Psychology*, 81, 78-96.

Carver, C. & Scheier, M. (1994). Situational coping and coping dispositions in a stressful transaction. *Journal of Personality and Social Psychology*, 66, 184-195.

Chen, J. F., Warden, C. A., & Chang, H.-T. (2005). Motivators that do not motivate: The case of Chinese EFL learners and the influence of culture on motivation. *TESOL Quarterly*, 39 609-633.

Chen X, Dong Q, Zhou H. (1997) Authoritative and Authoritarian parenting practices and social and school performance in Chinese children. *International Journal of Behavioral Development* 21, 855–873.

Corbin, J. & Strauss, A. (2008) *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*. 3rd edition. London: Sage.

Costa, P. T., Jr., & McCrae, R. R. (1992). Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI) manual. Odessa, FL: Psychological Assessment Resources

Covington, M. (1993) A motivational analysis of academic life in college. In J. Smart (ed.), *Higher Education: Handbook of theory and research*, 9, 50-93. New York: Agathon Press.

Coyle, D., Hood, P., & Marsh, D. (2010). *CLIL: Content and language integrated learning*. Cambridge: Cambridge University Press.

Deci, E. L., Koestner, R., & Ryan, R. M. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards. *Psychological Bulletin*, 125, 627–668.

Dörnyei, Z., & Chan, L. (2013). Motivation and vision: An analysis of future L2 self images, sensory styles, and imagery capacity across two target languages. *Language Learning*, 63(3), 437-462.

Education Bureau. (2004). *Evaluation on the implementation of the medium of instruction guidance for secondary schools: Final report (1999–2002)*. Hong Kong, China: Government Printer.

Education Bureau. (2006). *Further evaluation on the implementation of the medium of instruction guidance for secondary schools: Final report (2002–2004)*. Hong Kong, China: Government Printer.

Folkman, S. & Lazarus, R. (1985). If it changes it must be a process: study of emotion and coping during 3 stages of a college examination. *Journal of Personality and Social Psychology*, 48, 150-170.

Gardner, R.C. (2004). Attitude/ Motivation Test Battery: International AMTB Research Project. Accessed online <http://publish.uwo.ca/~gardner/docs/englishamtb.pdf>.

Guilloteaux, M. & Dörnyei, Z. (2008) Motivating language learners: A classroom-oriented investigation of the effects of motivational strategies on student motivation. *TESOL Quarterly* 42(1), 55-77.

Harter, S. (1981). A new self-report scale of intrinsic versus extrinsic orientation in the classroom: Motivational and informational components. *Developmental Psychology*, 17, 300–312.

Hoare, P., & Kong, S. (2008). Late immersion in Hong Kong: Still stressed or making progress? In T. W. Fortune & D. J. Tedick (Eds.), *Pathways to multilingualism: Evolving perspectives on immersion education* (242–263). Clevedon, England: Multilingual Matters Hillsdale, NJ: Lawrence Erlbaum.

Lazaruk, W. (2007). Linguistic, academic, and cognitive benefits of French immersion. *Canadian Modern Language Journal*, 63(5), 605-628.

Lepper, M. R., Henderlong Corpus, J., & Iyengar, S. S. (2005). Intrinsic and extrinsic motivational orientations in the classroom: Age differences and academic correlates. *Journal of Educational Psychology*, 97, 184–196.

Lo, Y.Y. & Lo, E.S.C. (2014) A Meta-Analysis of the Effectiveness of English-Medium Education in Hong Kong. *Review of Educational Research* 84(1), 47-73.

Medford, E., & McGeown, S. P. (2012). The influence of personality characteristics on children's intrinsic reading motivation. *Learning and Individual Differences*, 22, 786–791.

Peterson, C. & Barrett, L. (1987). Explanatory style and academic performance among university freshmen, *Journal of Personality and Social Psychology*, 53, 603-607.

Robbins, S. B., Lauver, K., Le, H., David, D., Langley, R., & Carlstrom, A. (2004). Do psychosocial and study skill factors predict college outcomes? A meta-analysis. *Psychological Bulletin*, 130, 261-288.

Sallili, F. & Tsui, A. B. M. (2005) The Effects of Medium of Instruction on Students' Motivation and Learning. In Rumjahn Hoosain & Farideh Salili (Eds.), *Language in Multicultural Education* (135-156). Research in Multicultural Education and International Perspectives, Volume 4. Greenwich CT: Information Age Publishing (IAP)

Schunk, D. H. (1991). Self-efficacy and academic motivation. *Educational Psychologist*, 26, 207-231.

Spada, N., Fröhlich, M. (1995). *COLT Communicative Orientation of Language Teaching observation scheme: Coding conventions and applications*. Sydney, Australia: Macquarie University, National Centre for English Language Teaching and Research.

Sridhar, S. N. (1994). A reality check for SLA theories. *TESOL Quarterly*, 28, 800-805.

Struthers, C. W., Perry, R. P., & Menec, V. H. (2000). An examination of the relationship among academic stress, coping, motivation and stress in college. *Research in Higher Education*, 41, 581-592.

Ushioda E. (1994) 'L2 motivation as a qualitative construct', *Teanga*, 14, 76-84.

Warden, C. A., & Lin, H. J. (2000). Existence of integrative motivation in an Asian EFL setting. *Foreign Language Annals*, 33(5), 535-547.

Wentzel, K. (2000) What is it that I'm trying to achieve? Classroom goals from a content perspective, *Contemporary Educational Psychology*, 25(1), 105-115.

You, C.J. & Dörnyei, Z. (2016). Language learning motivation in China: Results of a large-scale stratified survey. *Applied Linguistics*, 37, 4, 495-516.