RESEARCH ON THE CORRELATION BETWEEN CHINESE LEARNING STRATEGIES AND PROFICIENCY

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Abstract

This is a quantitative study in which I examine and narrate my experiences as a Chinese language teaching scholar regarding the correlation and mechanism between the learning strategies and proficiency of Chinese language learners. Adopting the data-driven study and open-ended interviews as grounded methodology, sampling participants' scores on the HSK test and HSKK test, and their perspectives on learning strategies. Iterative data collection and constructive analysis uncovered strategies such as practicing mock tests, acquiring grammar and vocabulary as a prerequisite to writing skills, rewiring prefabricated patterns, familiarizing with rubrics and scoring criteria, extending the reading scope from daily dialogue to newspapers, academic essays, or fiction.

According to the statistics collected from 50 students of Confucius Institute at the University of Botswana, it indicates three main findings: 1. The learning strategy correlates with Chinese proficiency. 2. The metacognitive strategy and social strategy ranked at the top two positions amongst the other used strategies. 3. The mechanism of Chinese learning strategy manifests a noticeable deviation of individual differences in age, gender, and motivation.

Keywords: *Botswana, Chinese learning strategy, proficiency*

Introduction

Learning strategy is a series of scenarios and behaviours adopted by learners to achieve certain objectives, entails adjustment and processing. This article aims to tackle the long-standing confusion about learning strategy and proficiency. It tries to shed a light on how to collate and analysis the individual study case with complexity and extrinsic factors. The article consists of five main sections, namely： 1.background. 2. research method. 3.hypothesis in a correlation between two core factors. 4.analysis of evidential statistics. 5.conclusions. Both reasoning and questioning were strictly selected to ensure credibility. This article also categorized the parameters so that the structure could flow with brevity and balance. This article formulated a series of conclusions that devote to offer helpful suggestions to Botswana students. The respondents are all registered students of CIUB (Confucius Institute at the University of Botswana), for the sake of their privacy, their names have been omitted. I greatly appreciate their assistance and collaboration.

Background and the Problem Statement

With the rapid development of Chinese teachings abroad, learning strategy itself also shows different traits from person to person, country to country. The research on Chinese learning strategy will unlock the inferences about learning mechanisms, therefore, make a significant difference towards this career.

Myriads of outcome about Chinese learning strategy indicate that the learning strategy positively correlated to proficiency, the paradigmatic works include *the research of learning strategy of Mandarin as a second language, The correlation between Chinese learning strategy and effect, The correlation research between learning interests and test performances in ethnic minorities.* For example, Jiang Xin and Zhao Guo developed their own scale table based on the Oxford scale.[1]

However, the above mentioned case studies about learning strategy are still flawed intrinsically.

First of all, the evidential proof has not been sufficient to illustrate the difference between various nationalities and backgrounds.

Secondly, the personal traits also significantly influence the application of strategies. However, the mechanism of this influence has yet to be profiled specifically to understand the dynamics and understanding of its manifestations.

A growing number of students, especially in higher levels (level 7 and above) are still confused by Chinese characters, tones, even daily dialogues, which motivated me to explore the root foundations of this issue. The ultimate objective for language learning is aimed at job acquisition and skill advancement. The predominant reason which led to this reflective analysis is attributed to the lack of Chinese language speaking skills in Botswana labour market.

One thing that perks up the ears of recruiters more than anything else, is the ability to be bilingual. Speaking Mandarin, in particular, is a highly sought skill in Botswana, because of the strengthened cooperation between Botswana and China. For example, most employers require the candidates to be fluent in Mandarin on a professional level, rather than solely rely on the "street-smart" abilities in Chinese language greetings and basic conversations. The professional and or job-level performance expectations regarding intermediate skills includes, but is not limited to, the preparation and submission of written comments, participation in workshops, meetings, and hearings; participation in technical advisory and working groups. Secondly, the speaking skill, as an independent skill in workplace, has always been placed in a subordinate status in CIUB evaluation. For instance, in the University of Botswana final exam, from level 3 and above, the oral test only stands for 10 points out of 100; even in level 1, the oral test only stands for 20 out of 100, which

[1] According to the Oxford theory in scale, every mean denote the frequency that has been applied in learning strategy, for example, if the mean range from 1.0-1.4 it indicates 'Never used this strategy before', 1.5-2.4 as 'rarely used', 2.5-3.4 as 'sometimes used', 3.5-4.4 'often use', 4.5-5.0'always use'.

inevitably has resulted in under valuing the training of speaking. Therefore, few CIUB students are able to demonstrate Chinese langauge fluency in a professional work context.

Research Method

Three main methods that were applied in this reflective study include quantitative survey, qualitative survey, and motion-oriented interview (Li, 2014).. These methods indicated feasible credibility and validity. Across the history of linguistics, the research method varies from case to case. It depends on the theme, the resources engaged in investigation, the conception and hypothesis. This article attempt to adopt a scale table that has been testified and verified in many types of researches before, for example, The correlation between Chinese learning strategy and effect, by Jiang Xin and Zhao Guo (Yu, 2016*).* With regard to the interview part, I recorded all oral interviews and then revisited it by transferring it onto a paper, removing repetitive words and irrelevant details. All the questions have no particular implication or figurative expression to ensure the ultimate specification for reading comprehension.

With advent of computer software, it has become an essential skill to process data and information highly automatically, because it fundamentally enhanced our efficiency and precision with regard to complicated problems. SPSS is currently the most commonly used statistic software in all aspects of social science, it provides various scenarios for data processing as well as relevancy analysis, which is the most challenging part in social science. For example, the question like 'how can I interpret the output properly without understanding the background information or underlying data?' or 'why are there so many buttons on the home page?' These (and many other questions) are the basis for many confusions and frustrations I have experienced myself when using a computer application or software, but in order to progress with one's research on a professional level, there is no way but to learn the software take time to practice it to proficiency. Moreover, SPSS offers a set of options or sub-routines that one can utilise for data analysis, depending on a sought-after outcome or evaluation, which is different for every research question or hypothesis. It takes time and patience to sort out when and how to apply the various SPSS options in our research needs.

Data is at the core of each analysis process. Mostly we put forward an assumption based on the precondition that exists in real world, for example, it can vary from after-tax clearance in a financial report of the economic market to an ingredient checklist of a catering agency. For instance, if a marketing manager needs to make a pricing strategy and supplier connections, then s/he has to make a model about the demographic data in order to predict the potential sales.

To sum up, the statistical paradigm we engage must align with the data collected as much as possible. The degree to which a model denotes the data clusters available can be interpreted as the fit of the paradigm. In this study, I had to make a choice on how to cluster or disaggregate my data – between the recorded oral interviews and SPSS

data processing options – in order to verify and credit the result of research. The model of evaluation was established in the first stage to predict the possible results.

Hypothesis about the correlation

Table 1: The Strategies involved in this research.

1.Memorizing Strategy	2.Cognitive Strategy	3.Cognitive compensation strategy
4.Metacognitive Strategy	5.Social Strategy	6.Affective Strategy

Due to the intrinsic multi-dimensional and complexity in Chine language learning, it is common practice to choose six categories above to represent the mainstream of learning strategies of languages, because this is much more cost-effective compared with dipping a toe in a wide range of strategies (Yu, 2016).

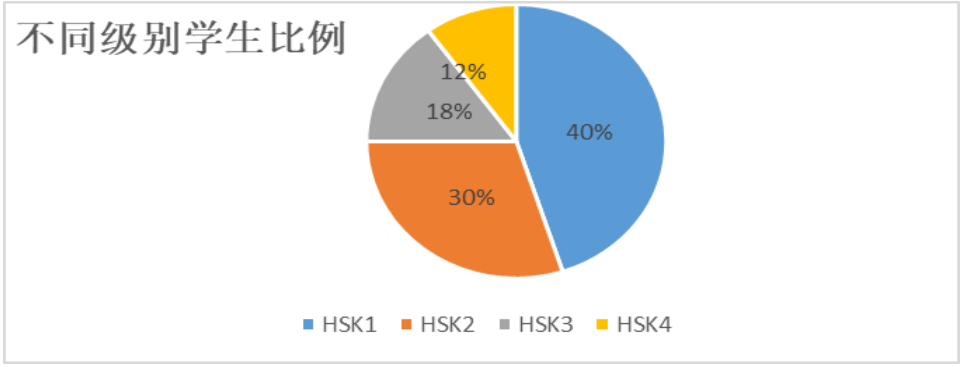
Figure 1: The formula of covariance.

$$\operatorname{cov}(x, y) = \frac{\sum(x_i - \bar{x})(y_i - \bar{y})}{N - 1}$$

To illustrate this formula, covariance is a measure of the joint variability of two random variables in probability theory and statistics. Correlation is a measure of the linear relationship between variables. (Field, 2005) In total, there are three modes of relationship that those different variables could arise correlation, namely, positive correlation, negative correlation, and partial correlation, but all of them depend on the deviation from the mean. For example, suppose we assume that memorizing strategy is positively related to the proficiency of the language learner. To prove this argument, we have to collate the data from a language proficiency assessment that could accurately display the student's skill in speaking. If the mean of language score is 5.0 whereas the memorizing strategy is 3.2, by the concept of deviation, then we can calculate that covariance by multiplying the corresponding difference of a second variable guided by the formula in Figure 1.

Evidential statistics and analysis

Figure 2: The demographic proportion of students in HSK[2]



[2] HSK represent a Standard International Chinese proficiency test.

The above pie chart indicates that the majority of CIUB students are still staggering between preliminary level and intermediate level indicated in blue and orange. Only 12% of CIUB students pass HSK 4 although 40% of CIUB students pass HSK 1. The pass rate is significantly lower from HSK 4 to HSK 1.

Table 2: The deviation value table of different learning strategies.

TTs	Memorizing strategy	Cognitive strategy	Cognitive Compensation strategy	Metacognition strategy	Social strategy	Affective strategy
1	0	0.460	0.200	0.200	1.	0
2	0.460	1.	0	0.460	0.200	0
3	0.200	0.460	1	0.200	0.460	0.200
4	0.200	0	0.460	0.460	1	0.200
5	1	0.200	0	0.200	0	0.460
6	0	0.460	0.200	1	0	1

In mathematics and statistics, a deviation is a measure of the difference between the observed value of a variable and some other value, often that variable's mean. The sign of the deviation reports the direction of that difference (the deviation is positive when the observed value exceeds the reference value). The magnitude of the value indicates the size of the difference. According to Table 2, all means of the six columns are smaller than 0.5, which denotes a normal distribution. Primarily there is no obvious evidential proof of the relation between social strategy and Chinese proficiency, yet to other strategies, like metacognitive strategy and affective strategy, indeed it shows a positive relationship with proficiency. Lastly, most students in the study have attended the orientations, which were about language learning strategies in the main. Beneficial interaction between students and teachers also enhanced their recognition and pursuit of effective engagement with Chinese language learning, because students get feedback and suggestions from their teachers so that they can improve afterward.

Table 3: The HSK and HSKK report of random respondents.

Exam	1	2	3	4	5	6	7	8	9
HSK	182	130	278	190	240	210	183	191	200
HSKK	65	70	80	75	85	70	69	75	90

Table 3 shows both HSK and HSKK result of different respondents, the total mark of HSK is 300 points whereas 100 points for HSKK. In Botswana, both HSK and HSKK are organised twice annually by CIUB, which is during March and October. HSK represents the standardized language proficiency test in Mandarin, which is also the most recognized Mandarin test worldwide.

Table 4: Deviation test report from two sides.

	Deviation Test					t	df	Sig
	Mean	RMS	RMS error	95%fiducial interval				
				Lower limit	Higher limit			
MG---M	9.220	7.186	1.016	7.177	11.262	9.072	49	.000
S------M	9.660	8.232	1.164	7.320	11.999	8.297	49	.000
E-----C	-1.500	7.799	1.102	-3.716	.716	-1.360	49	.180

（MG represents for metacognition，M for Memorizing，S for Social，C for Cognitive Compensation，E for Affective）

Data in Table 4 demonstrates that sig. value<0.05, which means deviation is noticeable and it suggests that the metacognition and memorizing strategy have noticeable difference towards Botswana students, but the other three strategies do not indicate the traits.

Table 5: Two-sides tests of correlation.

		Score	Social Strategy
Test	Pearson correlation coefficient Sig N	1 50	.790 .000 .50
Social Strategy	Pearson correlation coefficient Sig N	.790 .000 50	1 50
		Score	Metacognition
Score	Pearson correlation coefficient Sig N	1 50	.118 .416 50
Metacognition Strategy	Pearson correlation coefficient Sig N	.118 .416 50	1 50

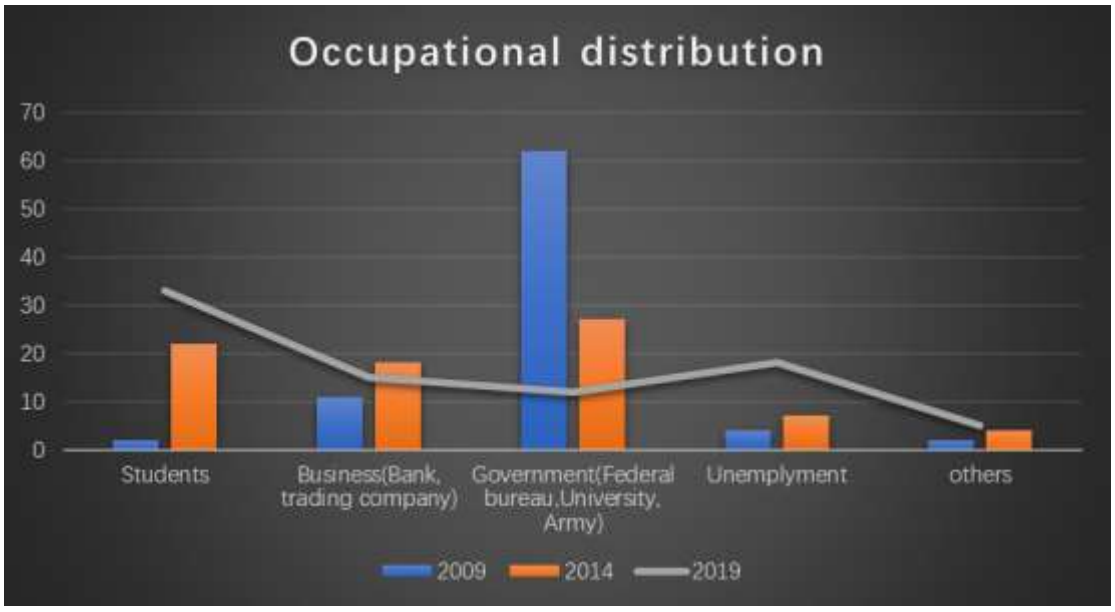
Within this correlation test, as 0.05 is a fiducial interval, by which the correlational value sig is less than 0.05, therefore we reckon that the social strategy and HSK report have statistically noticeable relation. However, a comparison between metacognition and HSK does not indicate any relation at all. A bivariate correlation between two variables cannot be assumed because there are other measured or unmeasured variables that influence the results.

Table 6: Interview data.

Items	Personal Information	Background of Second language acquisition	Motivation
1	Age	Mother language	Career
2	Gender	Work Language	Education
3	Family Environment	Other languages	Culture
4	Occupation	Time in Chinese learning	Others
6	Personality		
7	Proficiency in Chinese		

The interview is implemented under a unified structure, which greatly makes remarkable advantages for analysis and collation afterwards. For instance, given those categorized questions ultimately avoid the misunderstanding caused by some complex topics between interviewer and interviewee. Nevertheless, the structured interview inevitably comes with disadvantages such as a tendency to lead to in-depth information, and the dynamics of conversation which might reduce the effectiveness of questions. Less structured interview guide is meant to stimulate discussion rather than dictate it. Such an approach encourages interviews to be creative, adapt to ever-changing circumstances, and cede control of the discussion to the interviewee (Li, 2014). On matters such as family background, interviewee might be nervous and evade to answer questions with sufficient details, therefore, the interviewer should be flexible to adjust the questions accordingly in a way of leading the direction at large. Hence, interviews take a myriad of preparation and professional skills that relevant to the script.

Figure 3: Occupational distribution of respondents engaged in interviews.



The above figure consists of two parts, the occupational distribution of respondents who engaged in interviews, and the historical occupational distribution of 2009 and 2014, respectively. The X-axis represents different occupations whereas the Y-axis stands for the proportional scale of those various occupations. The linear diagram with grey line mainly demonstrates the latest occupational distribution, which marked contrast between 2009 and 2014.

Conclusions

The upward trajectory of Chinese proficiency is highly correlated with sophisticated learning strategies, for example: metacognition motivates students to do self-assessment, make and follow a study plans, make Chinese friends, and read epitomes of Chinese contemporary novels. Additionally, the social strategies also demonstrate

that students lack of social activities like workshop, contest, game party, conference, and face to face talks. The main reason is the interpersonal connections gap between local students and Chinese community. For example, the students seeking jobs from Chinese companies found that they are not able to find a job due to the requirements of minimum professional skills and five years solid work experiences in relevant industries. However, another potential reason is that a few groups of Chinese people are still embracing the cliquism that violates the principle as well as expectation of integration with locals. The students complained that when they tried to contact some Chinese businessmen while looking for employment, the business owners are arrogant and exhibit a negative attitude, so students of Chines language end up without any substantial job-search results among Chinese owned companies.

Therefore, the Chinese language practice activities should be rebuilt and reinvented in the classroom. The learning content should be as close to the real-life as possible. Teachers should expand students' curriculum and learning tasks with up to date vocabulary that ranges from newspapers, journals, movies, folk songs. Because these materials will complement their lack of exposure to the mandarin corpus, and will overhaul a lingual sensitivity and intuition.

In summary, institutions responsible for course building should conduct more contextual practice and exercises for students to develop the interest and skills of Chinese language learners.

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