A Critical Analysis of the Use of Pinyin as a Substitute of Chinese Characters

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Abstract—**The present research paper critically examines use of pinyin as a substitute of characters by Zimbabwean students during acquisition of Chinese language. A questionnaire survey and character recognition survey was done and it was discovered that the use of pinyin as a substitute for Chinese characters negatively affects the acquisition of more complex characters. It was concluded that since each Chinese character is an individual morpheme that carries meaning, therefore dependence on Chinese pinyin negatively affects vocabulary acquisition. The paper recommends that use of pinyin in teaching Chinese language should be limited to the first few weeks, because pinyin was developed to help students acquire the phonetic system of Chinese language rather than the acquisition of vocabulary and grammar. The paper suggests that there is need to explore more ways of balancing the teaching of pinyin and characters in a way that will motivate learners to like Chinese language.**

Index Terms—**Chinese characters, Pinyin, language acquisition, teaching of Chinese, Zimbabwe**

I. INTRODUCTION

According to Wai (1993) pinyin is a Romanized phonetic spelling system for Mandarin or Standard Chinese language. Pinyin uses 25 letters in the English alphabet except /v/ to represent different Chinese sounds. For many Chinese second language learners, pinyin has become an alternative writing system for Chinese language. However, pinyin is just an aid to pronunciation (McBride-Chang et. al., 2005). It was noted that in teaching Chinese as a foreign language the majority of learners seem to embrace pinyin as a substitute of Chinese characters. Chinese characters are symbols that represent meaning, thus every symbol either represents a word or a minimal unit of meaning and each character represents a single syllable with a specific tone (Ning and Montanaro, 2012). Phonetic representation of sounds using Romanized phonetic spelling system (pinyin) does not represent meaning, on the other hand though it is possible to use tone marks on pinyin, it is difficult to differentiate meaning for those words that use similar pinyin and similar tone marks, thus this makes Chinese characters unique and irreplaceable. As Li (2005) noted that Chinese language uses 411 syllables only for its whole vocabulary system, this means characters are the main component of Chinese vocabulary.

Pinyin is used as the base for teaching the sound system for both native speakers of Chinese language and foreigners. According to McBride et al., (2005) from kindergarten, Chinese children are taught the pronunciation of characters using the pinyin phonemic system. However, for foreign students, pinyin ends up being a substitute for characters while for Chinese children they still manage to grasp and use characters more than they use pinyin. Ding (2010) says that in the process of teaching and learning Chinese language, characters are the most important part and they play a role which cannot be replaced, and if students do not have strong foundation of Chinese characters their progress in learning Chinese language will be limited to some extent. Wu (2010) also agrees that though Chinese characters seem to be the most challenging part in Chinese language acquisition, however pinyin cannot replace Chinese characters in any way.

From 2007 when Chinese language was introduced in Zimbabwe up to the present, a large number of students gave up studying Chinese especially towards third year when Chinese characters are introduced mainly because they feel that Chinese characters are very difficult. This paper however seeks to discuss the challenges of using pinyin as an alternative writing system for Chinese language. An attempt will be made to assess the impact of overdependence on pinyin to the acquisition of Chinese characters. It is our hope that, a compatible strategy will be suggested to help second language learners of Chinese language to master both the phonetic system of Chinese using pinyin as well as the proper writing system (characters) without any overdependence on pinyin.

Background

In Zimbabwe Chinese language was introduced in 2007 at the University of Zimbabwe. Due to the good relationship between China and Zimbabwe as well as the rapid growth enjoyed by the Chinese economy, a lot of support has been given to the teaching of Chinese in Zimbabwe by the government of China. Initially only 30 students registered to study Chinese language, but at the present the enrollment in courses for Chinese as a foreign language has been growing at a rapid pace. Up to the present more than 700 students majoring in Chinese language are said to have graduated from the University of Zimbabwe.

In our pre-research survey it was observed that though a number of students are registering to learn Chinese language, the majority of Zimbabwean students still lack studying materials as well as time for self-practice since they study Chinese as a third subject for their Bachelor of Arts degree. It was also observed that students use photocopies of textbooks such as "Learn Chinese with me", of which some under-privileged students cannot even afford to photocopy these textbooks. This is a disadvantage to the acquisition of Chinese language.

Zimbabwean languages like European, American and other African languages use Latin letters for orthography; the majority of students who learn Chinese language in Zimbabwe are adults who have already acquired the writing system for both their native languages and English. On the other hand Chinese language is a logographic language in which one "character" corresponds roughly to one "word" or meaning (Nick et al., 2004). This suggests that students whose native languages are non-character based languages are naturally inclined towards adopting pinyin as the writing system for Chinese language.

From 2007 up to 2012 first and second year Chinese language students at the University of Zimbabwe were allowed to use pinyin as the writing system for both examinations and for their daily exercises. This followed the belief that learning Chinese characters is difficult, even under the best of circumstances (Hannas, 1994). A Socio-Educational Model for learning the writing system for Chinese orthography by Wong (2011) shows that; interest in learning Chinese as a second language may be positively affected after learning Chinese orthography and discourse patterns, which will eventually influence their goal-setting process as well as their motivational strategies to learn Chinese orthography. It was observed that the majority of students learning Chinese language in Zimbabwe were motivated to study Chinese language because the use of pinyin seems to make Chinese language simple.

Although Chinese Pinyin system is similar in some ways to the English alphabet, however apart from helping students to master the phonetic aspect of Chinese language, nevertheless it cannot replace Chinese characters. Chinese characters are a carrier of Chinese history and culture, also for students to pass Chinese proficiency test known as HSK (Hanyu Shuiping Kaoshi) level 3 to level 6 they need to know certain amount of Chinese characters. According to the director of the Confucius Institute at the University of Zimbabwe first year students are expected to pass HSK level 1, second year students are expected to pass HSK level 2 and final year students are expected to pass HSK level 3[1]. This is different from the situation in China where foreign students are expected to pass HSK level 4 or above after studying Chinese language for 1 year. This shows that the teaching approaches in Zimbabwe and China are different. Therefore, since the majority of students whose native languages are non-character based languages prefer using pinyin instead of characters it is necessary to critically examine the use of pinyin as a substitute of Chinese characters. In this paper it is emphasized that for students to fully understand Chinese language or improve their Chinese proficiency to HSK level 4 and above they have to learn and know Chinese characters.

II. LITERATURE REVIEW

Previous researches overemphasized on the challenges of learning Chinese characters rather than on the challenges caused by overdependence on learning Chinese pinyin. For instance the majority of linguists in and outside China seem to agree that one major factor that makes Chinese language difficulty is the complex writing system (Everson, 1998; Shi and Wan, 1998; Walker, 1989). This notion seems to affect both students and teachers of Chinese language, thus use of pinyin in teaching and learning Chinese language is tolerated when teaching foreign students yet for Chinese kids a strict approach is used that encourages students to learn Chinese characters as simple as one would learn the English alphabet.

There have been also considerable researches exploring errors made by foreign students when writing Chinese characters, for example Chen, Wang and Cai (2010). The majority of these researches normally argue that the reason why such errors are made is because students are used to non-character based languages. On the other hand, Lin and Collins (2012) noted that Japanese learners of Chinese acquire Chinese characters faster than English learners because of the greater phonological and orthographic similarities between Japanese and Chinese. Chung (2007) noted that native speakers of Chinese learn Chinese characters after they already know most of the phonological expressions and their meanings while learners of Chinese as a second language do not have this language foundation so that they learn the language along with the writing system. In other words students' native languages are regarded as the main cause of errors encountered by Chinese second language learners.

Pertaining to Chinese characters Koda (2004) noted that learning to read and write in Chinese as a second language requires different types of metalinguistic awareness than English. This implies that it is a matter of approach and attitude that helps in the process of acquisition of Chinese characters rather than knowledge of other languages. A detailed research about teaching Chinese orthography to Chinese language beginners done by Wong and Meng (2011) illustrated that the pedagogy adopted by different teachers directly impacted on the students' orthography learning motivation and eventually its learning outcome. It is almost apparent that the attitude that students might have towards Chinese orthography is in a way linked to the teachers' teaching approach.

Since Chinese language was introduced in Zimbabwe very little research has been done on the ways and methods that are being used to study Chinese language by Zimbabwean students and no research has been done to examine some

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[1] Interview with Professor Liu Xiuyan, the Director of Confucius Institute at the University of Zimbabwe, 9th of March 2013.

of the difficulties faced by Zimbabwean students in acquiring Chinese characters. Considering the fact that the Zimbabwean students who learn Chinese language are adults and the fact that their first languages use writing symbols which are different from Chinese characters, the majority of students find it difficult to master Chinese characters thus they use pinyin as an alternative writing system for Chinese language.

This paper does not completely agree to the notion that Chinese characters are difficult, though characters are challenging (not difficult), the teaching approach and attitude created by both the teachers and students seem to play a critical role in the acquisition of Chinese characters. We argue that overdependence on pinyin makes acquisition of Chinese characters challenging. The argument is that Chinese pinyin is not an alternative writing system for Chinese language, thus this paper will examine the limitations of using pinyin as an alternative writing system for Chinese language.

Research Questions

During early stages of learning Chinese as a second language, simple phrases as the following ones are normally taught; *"Ni jiao shenme mingzi?"* (What is your name?), or such phrases as *"ni duo da le?"* (How old are you*?),* these phrases can be understood even without Chinese characters. However if someone writes*; "Ni baba shi mai shenme de?* "(What does your father sell? or what does your father buy?) This phrase is not clear unless we know the character for the word *"mai"* which can mean buy or sell depending on the character used. In the following phrase; *"Ni zhu zai nali?" (You live there? Or where do you live?),* though the question seem to be obvious but the meaning cannot be readily understood unless we know the character for the word "na" which can mean "there" (那) or "where"（哪）depending on the character. Therefore, this research is based on the premise that; use of pinyin both in teaching and learning Chinese should be defined in terms of its actual use range and its impact to the acquisition of the Chinese writing system. The main argument is that Chinese pinyin is not an alternative writing system for Chinese language, therefore since many students studying Chinese language in Zimbabwe and probably across Africa and beyond seem to embrace pinyin as a substitute for characters the question is;

i. Does pinyin really help to acquire Chinese language?

ii. If it does help, then to what extent does is help?

iii. What could be the impact of pinyin on the acquisition of Chinese characters?

This research attempts to answer the above questions, in order to design a proper teaching approach that will help students to acquire the proper Chinese writing system.

III. METHODOLOGY

Both qualitative and quantitative methods were used in this research. Initially a questionnaire method targeted at 40 Zimbabwean students was used to extract primary data about Zimbabwean students' use of pinyin and their attitude towards characters. Questions requiring students to provide information related to problems they encounter, strategies they use to master Chinese characters and to provide suggestions for the development of teaching and learning method that will help students to master Chinese characters.

Students' notebooks, internet social networks such as facebook, whatsapp and skype were used to collect raw data on how Zimbabwean students use pinyin. The use of pinyin was evaluated through examining the preciseness of information in various pinyin phrases in dialogues, chat conversations and compositions.

A short survey was also conducted to find out students' character recognition abilities. 20 HSK level 3 students participated in this survey. Only ten Chinese words with similar pinyin and different pronunciation as well as those characters which look almost alike were used for this survey. Since participants for this survey were too busy with preparations for their 2013 end of term examinations, a limited number of characters were used, so that they will not feel like they are being disturbed.

IV. RESEARCH FINDINGS AND DISCUSSIONS

The research findings were grouped into 3 sections;- the first section is an examination of use of pinyin during internet chatting, the second is use of pinyin in composition writing, and the last part is the results of character recognition survey.

Use of pinyin as a substitute of Chinese characters in Internet chatting

Internet chatting has become a distinct form of discourse with characteristics unique to the medium (Campbell and Scott, 2000). It should be noted that Internet chat dialogue is characterized by short and precise dialogues, spelling errors, and short forms. Chinese language learners at the University of Zimbabwe sometimes use Chinese pinyin during chatting either with their friends or teachers. The researchers kept some internet chat records with some University of Zimbabwe intermediate Chinese language learners. Analysis of the use of pinyin during internet chatting revealed some major limitations associated with use of pinyin as a substitute of Chinese characters. For all the chats which were collected, it was apparent that use of pinyin in chat is limited to simple conversations. Below we will give various misunderstandings that may arise from use of pinyin as a substitute of Chinese characters;

Misunderstand due to use of pinyin instead of characters

Below is a chat record where the use of pinyin on certain critical words instead of characters causes

misunderstanding and as a result the flow of dialogue seems to be discontinuous.

[2013/2/16 9:06:46] Marry: haojiubujianpengyou

[2013/2/16 10:46:00] Charles: haojiu bujian ,zuijin mang ma ?

[2013/2/16 10:46:23] Marry: bijiaomang

[2013/2/16 10:46:31] Marry: meitian jian pengyou

[2013/2/16 10:46:37] Marry: meitian qu dagong

[2013/2/16 10:46:44] Marry: jintian ye you dagong

[2013/2/16 10:47:44] Charles: haha jiayou pengyou ,wo meitian kan

nimen de zhaopian xiang nimen le haha

Figure 1: Use of confusing words

In the above dialogue there are 3 words which cannot be understood unless characters are used. The first word /jian/ can be interpreted in various ways, for instance the same pinyin /jian/ can refer to "监" which is to supervise, "减" to reduce, "捡" to pick up, "拣" to select, "见" to see, etcetera. The above 5 words which use the same pinyin /jian/ are all verbs and when we use them in the phrase "maitian qu jian pengyou" they seem to make sense. "Meitian qu" means "everyday go" while "pengyou" means "friend or friends" so in this case we have about five possibilities as shown below;

   1. Everyday go to supervise friend(s),

   2. Everyday go to reduce friend(s)

   3. Everyday go to select friend(s)

   4. Everyday go to pick up friend(s)

   5. Everyday go to see friend(s)

As can be seen from the above examples, we are left wondering what this person is doing; is this person supervising friends, reducing friends, selecting friends, picking up friends or going up to see friends? If characters were used the meaning would be clear and straight-forward. The second confusing word is "dagong" in the phrase "*meitian qu….*" (Everyday go to….). This phrase can only be understood when the context is known. This word "dagong" can be a noun as in the following words "大宫" Grand palace, "大工" Dakon， "大公" grand dyke，"大弓" long bow, and it can be a verb and a noun combine as in the word "打工" to do part time work. In the above phrase one is also left wondering whether this person is going to the grand palace or any of the nouns mentioned above or this person going to do part-time work.

The last confusing word is the one represented by the pinyin /xiang/ in the phrase "*wo meitian kan nimen de zhaopian xiang nimen le*". The first part of the phrase is clear; we understand this person looks at some photos, but due to the fact that "xiang" can mean to miss "想"， resembling "像", to enjoy "享"or look at and appraise "相", it is therefore confusing.

In all the above examples Chinese language beginners may find it easy to understand if both parties are beginners with limited vocabulary, because this will normally imply that they do not know a lot of vocabulary with similar pinyin. As one begins to acquire more Chinese vocabulary more and more words with similar pinyin will also increase. As Li (2005) already noted that Chinese language has a total of 411 syllables, therefore it can be concluded that if somebody take pinyin as the substitute of Chinese characters the learners' vocabulary is likely to be limited to 411 monosyllabic Chinese words. This is probably the reason why Chinese language students at the University of Zimbabwe seem to be limited between HSK level 1 and 3 even after studying Chinese for 3 years, while those students studying Chinese in China can pass HSK 4 within 1 year.

Misunderstanding due to use of a new word in pinyin

In Chinese language once one is an intermediate Chinese language speaker, it is rare to find new words very confusing, because it is possible to guess the meaning of the words using the characters used in a given phrase. However, in one of the internet chats it was clear that it is not easy to guess the meaning of new Chinese words especially if the words are written in pinyin. This is mainly because Chinese pinyin might be same but being pronounced differently, thus the characters will be same. From the following dialogue it is difficult to guess the meaning of the word /晚安 wanan/(goodnight) mainly because it was written in pinyin.

4 月 29 日 下午 10:23 - Tanua Ngwenya: Xianzi wo xie hanzi.....hen nan

4 月 29 日 下午 10:26 - 李开明: jiayou

4 月 29 日 下午 11:47 - 李开明: wanan

4 月 30 日 上午 12:08 - Tanua Ngwenya: Bu dong

4 月 30 日 上午 12:49 - 李开明: nali budong?

4 月 30 日 上午 1:33 - Tanua Ngwenya: Wanan?

4 月 30 日 上午 1:36 - 李开明: it means good night

Figure 2: Showing the use of a new word in pinyin

In this dialogue the word /晚安 wanan/ was new to this learner and it was difficult to grasp the meaning, and that is why the participant asked "wanan?", even if he/she had searched in the dictionary it was difficult to guess the meaning. This is because there are three words with the same pinyin "wanan" and their meanings are different, these words are "万安" (Macron) which is a name of a place in China, "湾岸" which means a curving bay shore and "晚安", which means good night. One might argue that even if characters were used, the student might not have understood this word, however it should be noted that once one has started to learn characters it is simple to connect between simple characters and complex characters, the character for wan "晚" which means night and "安"which means peace, are simple characters such that if one combines the meaning, then it is quite easy to guess the meaning of these two characters.

Misunderstanding due to missing letters on pinyin

Unlike in English, when using pinyin for chat any simple spelling errors will lead to total confusing. According to the Cambridge research team the order of words does not matter as long the first and the last letters are at the right place[2], however this is not true for Chinese language because any simple spelling error of pinyin will distort the meaning as can be seen in the following examples which were collected during internet chats:

3 月 14 日 上午 1:24 - 李开明: oh naxhong shouji bu zhichi zhongen

3 月 14 日 上午 1:24 - 李开明: oh naxhong shouji bu zhichi zhongen

3 月 14 日 上午 1:25 - 李开明: zhong ..n bushi xhong

3 月 14 日 上午 1:27 - Gladys: Bushi xhong shi original nokia

3 月 14 日 上午 1:29 - 李开明: tht was my typing error. was saying.. nazhong meaning tht type..

3 月 14 日 上午 1:30 - Gladys: I am lost

Figure 3: Missing letter

In the above chat record, a slight error on some pinyin words led to total confusion, in this case /nazhong那种/ which means "that type" was typed as /naxhong/, and /zhongwen中文/(Chinese) was typed as /zhongen/ thus making the word /nazhong/ (that type) sound like a name phone, at last the conversation switched back to English in order to explain the typing error. We can compare effects of spelling errors with some English examples shown in the following dialogue;

[2013/2/7 0:08:34] FAITH: i cant acesss my email

[2013/3/7 0:08:35] Rebecca: so wath are you goin to do?

[2013/3/7 0:08:36] FAITH: juest gve up.

[2013/3/7 0:08:46] Rebecca: good idea!, how is Renda?

[2013/3/7 0:11:00] FAITH: its good ,but a bit boring haha ,now i have a very long time without going to church ,snce new year ,i feel vey bad

[2013/3/7 0:28:48] Rebecca: good nigt, i am sleepinf!

[2013/3/7 0:29:46] FAITH: good night

Figure 4: Spelling errors in English chats

As can be seen from the above dialogue a short conversation in English with about 8 spelling errors seem to flow well without any misunderstanding. The word "access" was written as "*acesss*", "sleeping" was written as "*sleepinf*", "what" was written as "*wath*", while "just" was written as "*juest*", etcetera. All these errors seem not to affect the meaning of words as it could have been in Chinese pinyin.

Misunderstanding due to missing word in pinyin conversation

Below is a chat record for Whatsapp dialogue in pinyin where a simple word that was omitted and the meaning of the whole phrase became confusing;

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[2] Research team at Cambridge University, Discussion of the meme by Matt Davis of Cambridge University

6 月 3 日 下午 2:35 – Tanua   : Xiexie,Pengyou ni hao ma?

6 月 3 日 下午 2:38 – 李开明: wo feichang hao, nine?

6 月 3 日 下午 2:38 – Tanua   : Wo hen hao

6 月 3 日 下午 2:39 – 李开明: ni zai gan shenme?

6 月 3 日 下午 2:40 – Tanua   : Wo xiuxi jia

6 月 3 日 下午 2:45 – 李开明: what does that mean?

6 月 3 日 下午 2:46 – Tanua   : Resting

6 月 3 日 下午 2:49 – 李开明: where?

6 月 3 日 下午 2:50 – Tanua Ngwenya: Hme,now on vacation

Figure 5: Missing word in pinyin conversation

In the above chat record it can be seen how confusing it is when a single word is missing in pinyin. In English, it is possible to omit certain words or use wrong spellings without affecting the meaning of the phrase. In the above chat with one of the University of Zimbabwe intermediate student the researcher got confused when the student said "*wo xiuxi jia*". Obviously this student made a grammatical error but it was not possible to guess the meaning as it could be in English. The phrase "*wo xiuxi jia*" could be "我休息在家 or 我休假了". It was difficult to figure out whether the student added one word or there was a missing word. If characters were used the word /jia/ could not have been confusing. If it was 家 one could figure out that there is a missing word and if it was 假 then it could be possible to figure out that there is an extra word which was added by mistake.

In the above pinyin dialogue the two people chatting misunderstood each other until English was used to explain what the other person was trying to say. Apart from internet chatting University of Zimbabwe students also use pinyin during their examinations and home works. Below, is an extract from students' composition which shows the limitations of pinyin as a substitute of Chinese characters.

Use of pinyin in composition writing

Use of pinyin when writing compositions seem to pose similar challenges as those observed above as can be seen in the following paragraph adapted from one of compositions by University of Zimbabwe intermediate student;
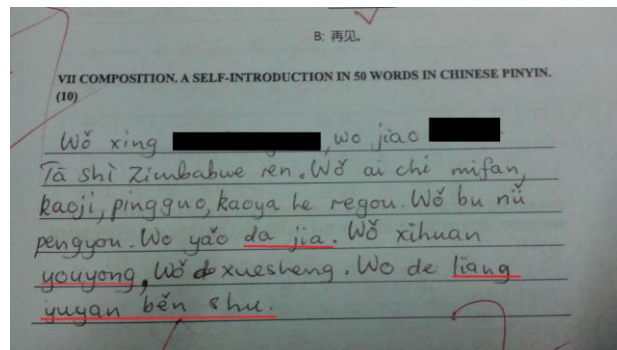
Adapted from Students' composition homework
Figure 6: An extract of pinyin composition

From the above composition it is difficult to understand the underlined words such as "dajia", "youyong", "liang" etcetera. This is mainly because use of pinyin does not give enough hint of the meaning of a word even if tone marks are used. The phrase "*Wo yao dajia*" we can understand that this person wants something from the common phrase "wo yao.." (I want..). However we are not sure of what he or she wants due to the fact that "dajia" could mean any of the following words, "打假" to crack down on counterfeit goods, "打价" to bargain, "大家" everyone and it can be "打架" to fight. So does this person want to crack down on counterfeit goods, or want to bargain? Does he want to fight or he wants everyone? The same questions can be raised again on the word "youyong". We know that the person likes something from the common phrase "*wo xihuan..*" (I like..), but we can never be sure of what this person likes unless characters are used. "Youyong" could mean being useful if written as "有用", it could mean a name of a person if it is written as "尤勇", also it could mean stragglers and disbanded soldiers if it is written as "游勇"and it could mean to swim if it is written as "游泳".

The above analysis of the challenges of using pinyin as a substitute of characters shows that the pinyin system cannot replace Chinese characters. Use of pinyin in composition writing and chatting is limited to simple greetings and some other daily conversations only. The University of Zimbabwe students are used to pinyin which use Latin letters similar to those used in Zimbabwean official languages such as Shona and English. During this research, all 40 students who responded to the questionnaire think that Chinese characters are very difficult thus they use Chinese Pinyin to replace

Chinese characters. Students are used to associate what they pronounce with Latin letters, thus the majority of students end up writing pinyin as a substitute for characters which are represented phonetically with similar pinyin, for example for the following words; "新, 信 and 心" students would prefer to write the pinyin /xin/ but these words are different in meaning depending on the tone and character radicals.

In this paper we do not attempt to undermine the role of pinyin in teaching Chinese as a second language, rather our main aim is to show that pinyin should be basically used as a tool for the acquisition of the sound system instead of being a substitute of characters. The following section is a presentation of the results of the character recognition survey for the University of Zimbabwe students.

Results for Character recognition survey

The results of the character recognition survey below shows that participants had challenges in recognizing certain simple Chinese characters and these errors could be tracked back to the knowledge of pinyin. 20 participants from the second year and third year class were asked to read Chinese characters and their errors were divided into; failure to recognize the character and misrecognition due to similarities with other characters. The results were calculated and given in percentages using the following formula: number of participants who had similar error divided by 20 multiply by 100. The table below shows error percentages for 20 HSK level 3students.

TABLE 1:
CHARACTER RECOGNITION EXERCISE
(ALL PERCENTAGES ROUNDED OFF TO THE WHOLE NUMBER)

	Correct reading %	Wrong reading%		Type of error
差不多	100%			None
行业	56%	44%		行 read as /xing/ instead of /hang/
出差	33%	67%		差 read as /cha/ instead of /chai/
行为	80%	20%		行 read as /hang/ instead of /xing/
末	40%	60%	44%	Could not recognize the character
			16%	Read the character as /末 wei/ instead of/ mo/
未	28%	72	44%	Could not recognize the character
			28%	Read the character as /末 mo/ instead of /wei/
士	46%	54	20%	Failed to recognize the character
			34%	Read the character as /土 tu/ instead of /shi/
土	57%	43	18%	Failed to recognize the character
			25%	Read the character as /shi/ instead of /tu/
男	100%			none
南	60%	40%		Failed to read the character

The first 4 words had similar characters which are read differently, the aim was to find out if students could recognize the differences in pronunciation depending on the combination of characters. The characters "未，末，土 and 士" were meant to find out if participants could differentiate between simple characters which look alike. The last 2 characters were meant to test if students could read simple characters with similar pinyin but different character and different meaning. Below is a brief description of the above results.

For a "pinyin addicted student"[3] it is difficult to grasp the complexity of Chinese characters. For instance there are certain characters with different pronunciations depending on the environment they are used, for example the character "行"which can be produced as /háng/ when used in such words as /银行 yínháng/ or /行业 hángyè/ and it can be produced as /xíng/ in such words as /行为 xíng wéi/ or /行李 xínglǐ/. In our survey which targeted HSK level 3 students it was found that 44% of the participants read the word "行业"as /xíngyè/. A high percentage of about 67% was also recorded for those students who read the character "差" in "出差" as they would read it in the word "差不多". These participants read the word /出差 chū chāi/ as /chūchà/ mainly because they know the word "差" in /chà bú duō/.

It is apparent that when the knowledge of pinyin is used as the base for learning Chinese characters, it is extremely difficult to adjust the mind of the students to get used to the complexity of Chinese characters. In the above case students seem to find it difficult to master 2 different pronunciations for the same character mainly because pinyin system seem to imply that a given syllable has a fixed pronunciation. However, according to Ma (2006) Chinese characters are independent of their pronunciation.

There are some Chinese characters which look almost similar as those 4 simple characters used above, however the meaning for such characters might not be related in any way. Above 60% of the participants failed to read the characters 未 and 末, while about 16 percent confused the two characters. Considering the fact that, these characters are simple characters, it can be argued that University of Zimbabwe students are not yet used to the nature of Chinese characters. For simple characters 土 and 士 above 40% of the students also failed to recognize the characters with some of the participants confusing these 2 characters.

From these results it can be concluded that the teaching methods for Chinese characters at the University of Zimbabwe might be taking a random approach where students would base their character acquisition on pinyin instead

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[3] We use the term "pinyin addicted students" to refer to those students who over depends on pinyin when learning Chinese language.

on the hierarchy of characters. In this paper it is argued that, teaching of Chinese characters should not be confusing if simple characters are taught first before the complex characters are taught, just like how English vocabulary is taught. Failure to recognize such simple characters by HSK level 3 students seem to suggest that, students learn those characters they find useful for examination purposes only.

The last two words 男 and 南 also give evidence that the majority of students seem to learn one syllable for one character. For instance, in this case all the students recognized the character 男 (boy) but 40% of them could not recognize the character 南 despite the fact that both characters are simple characters and they use the same pinyin /nan/.

This paper shows that though some foreign students believe that Chinese characters are more complex than pinyin but in actual sense they are mistaken because contrary to this notion pinyin is rather more ambiguous than Chinese characters. Use of pinyin in written compositions, chats and so forth is only limited to few short and common phrases however when we try to write long and complex phrases in pinyin the information conveyed is quite confusing.

V. RECOMMENDATIONS

In this paper we strongly believe that the notion that Chinese characters are difficult is just a matter of attitude and addiction to pinyin. Since pinyin was designed to help students acquire the phonetic system of Chinese language rather than the acquisition of vocabulary and grammar, we therefore recommend that in teaching Chinese language, pinyin should be limited to the first few weeks. Yaming Ma (ibid) suggests that Chinese characters should be taught according to the character formation system and once learners have a good grasp of radicals and simple characters, they will be able to analyze most of the compound characters they encounter, and to memorize new characters in a logical way. This method follows a simple principle where simple characters are taught first. Contrary to this teaching approach, University of Zimbabwe students learn characters based on the pinyin they encounter in short dialogues thus pinyin remains the main source of inspiration rather that the character's form and iconic nature. This explains why the participants of the character recognition survey would fail to differentiate between simple characters.

In this paper we recommend that students should be reminded that pinyin is not a writing system for Chinese language but a phonetic system, thus students will be always conscious of what they are supposed to learn. Chinese language teachers should know that to motivate students by allowing them to use pinyin as a substitute for characters gives false hopes to learners. We therefore, suggest that it is better to motivate students by teaching them simple characters which are easy to remember than teaching a lot of vocabulary in pinyin.

For the University of Zimbabwe students there are many other factors that should be taken into account along with the character-oriented teaching method. For instance, although Chinese language was introduced in Zimbabwe 6 or more years ago, the majority of students who are learning Chinese language do not major in Chinese language only as is the case in the American, Asian and European countries. Students studying Chinese language are either part time students who just want to learn Chinese for a short period or those who are studying for bachelor's degrees and opted for Chinese as their third course. For these students the time to study Chinese both in class and after class is not enough, this probably makes it difficult for students to practice writing Chinese characters. In this paper we recommend that apart from changing the teaching methods, there is also need to change the whole system in terms of students' recruitment. Offering an honors degree in Chinese where students will be studying Chinese language only will help improve both the teaching and learning of Chinese in Zimbabwe

Limitations and Future researches

Even though this study explored the various problems associated with over-dependence on use of pinyin during the teaching and learning of Chinese language, it still has some limitations. Firstly, the researchers could not experiment with character oriented teaching method in order to establish the effectiveness of this suggested method. There is a possibility that if characters are over-emphasized some students will give up learning Chinese. This research could not establish how best Chinese language teachers should balance between teaching pinyin and teaching Chinese characters.

It is our hope that future researches will focus on experiments related to teaching methods so as to establish the best way of teaching Chinese characters. Attempts can be made to explore the methods of teaching characters which are used when teaching native speakers of Chinese.

VI. CONCLUSION

In this paper we concluded that though the use of pinyin seem to be motivational to Chinese language beginners because of its resemblance to the orthography of students' native languages, however, it has negative impact towards students' future acquisition of Chinese language. Firstly Chinese pinyin affects the students' ability to acquire more Chinese vocabulary. A student who knows pinyin only will find it difficult to grasp those Chinese words which can be differentiated by characters only such as "心 and 新", "人 and 仁" etcetera.

Secondly overdependence on pinyin seem to make students feel like each syllable should have a unique meaning thus when they learn simple characters they end up taking each syllable as a single character. The character recognition survey showed that the majority of students would find it difficult to read those characters with similar syllables (as depicted by the pinyin) which are used to refer to different things. A number of students also failed to recognize some characters which are read differently in different contexts mainly due to the fact that students are used to pinyin system

where pronunciation of a given word is fixed. Apart from this it was also apparent that some students could not recognize certain characters which look almost alike such as "土 (tu) and 士 (shi)", "未(wei) and 末 (mo)". This is a sign that students are used to pinyin system where only a few letters look alike such as the small letter /L (l)/ and capital letter/ i(I)/, and probably letters /b/ and /d/. Unlike in English, a lot of Chinese characters look alike such that learners should have the ability to visualize the pictorial representation of meaning in the character rather that the form of the letter.

It is strongly argued that over dependence on pinyin does not help students to develop a strong base for the acquisition of Chinese language; however this paper does not provide the best method for teaching or learning Chinese characters. It is our hope that future researches will explore ways of balancing between teaching of pinyin and characters in order to promote the teaching and learning of Chinese in Zimbabwe and other countries where pinyin is dominantly used.

APPENDIX

LIST OF WORDS USED FOR THE CHARACTER RECOGNITION SURVEY

差不多	行业
出差	行为
末	未
士	土
男	南

PARTICIPANTS OF THE SURVEY

Males	10	HSK 3	19-24 years
Females	10	HSK 3	19-24 years

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