

# **RESEARCH ON THE USE OF CD IN SUPPLEMENTING MANDARIN LEARNING: DOES IT REALLY HELP IN MANDARIN TEACHING AND LEARNING?**

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## **ABSTRACT**

Using Information and Communication Technology in foreign language learning is a current trend in foreign language teaching. Research needs to be carried out to study the feasibility of using technology to supplement foreign language teaching. The specific objective of this study was to identify the feasibility of using CD to supplement the on-campus Mandarin courses in MARA University of Technology (UiTM), Terengganu branch campus, Malaysia. This was an experimental study that respondents consisted of Bumiputera students who were taking Mandarin Level 1 in the semester of July-November 2006. Generally, the research findings suggested that the students do have affirmative perceptions on the feasibility of using CD to supplement the on-campus Mandarin courses. In order to employ full potentiality of using technology in supplementing the foreign language learning, further suggestions are given.

## **INTRODUCTION**

The role of technology as a resource for instruction to foreign language learners is increasing as educators recognize its ability to create both independent and collaborative learning environments in which students can acquire and practice a new language (Butler-Pascoe, 1997). For instance, Computer Assisted Language Learning (CALL) is an emerging force in language learning (Knowles, 2004). CD, the creation of modern technology could also play an important role in helping non-Mandarin native speakers to learn Mandarin more effectively. It could be used as a relevant supplementary material for revision, tutorial, as well as enrichment purposes that enable the users to engage themselves in individualized instruction designed to meet their specific needs. Thus, this research focuses on the potential of using CD as a powerful tool for teaching and learning Mandarin. This is indeed an important area and a current direction in foreign language teaching, which is under the discipline of applied linguistics (Stevens, 1992). Thus, this study tries to examine the feasibility of CD in supplementing the on-campus Mandarin courses in UiTM, Terengganu State, Malaysia.

Goh and Rasaya (2006) mentioned the limitations faced by students in the face-to-face learning environment in where the students normally do not have enough time in

mastering Mandarin language under the normal classroom setting due to limited contact hours. Thus, these Bumiputera students, who are the non-Mandarin native learners, faced problems of mastering the correct Mandarin pronunciation, which can affect their listening and speaking skills. This poses a strong base in encouraging the use of CD to supplement students' Mandarin-learning.

## THE RESEARCH DESIGN, DATA COLLECTION METHODS AND PROCEDURES

This research used quantitative methodology. It was an experimental design of factorial 2X2. Quota sampling technique of Bumiputera students who were taking Mandarin courses at UiTM Terengganu in July 2006 semester used as samples to gain information. Information gathered through delivered questionnaires was then analyzed by using SPSS.

Table 1 below showed the samples involved in this research. They were two Mandarin instructors teaching two different classes of Mandarin. For each instructor, one class used CD and the other class without using the CD. For the treatment groups, the classes were held in language lab as to facilitate and to integrate the usage of the CD in classroom teaching.

**Table 1: Samples involved in the research**

	<i>Instructor A</i>	<i>Instructor B</i>	<i>Subtotal</i>
Using CD	30	28	58
Without using CD	28	28	56
<b>TOTAL</b>	<b>58</b>	<b>56</b>	

In the beginning of the semester, two instructors have conducted training for the treatment groups on how to use the interactive learning materials. Figure 1 showed a typical interface of the learning materials. Language of instruction inside the CD is Malay language – that is the native language of the learners.

Throughout the semester, the instructors frequently instructed and monitored the treatment groups to ensure that the CD was used as their supplementary materials according to the syllabus. For instance, the learning materials were arranged according to the chapters inside the Mandarin textbook. Figure 2 interface showed the number of times students had used the CD.

In the 10<sup>th</sup> week of the semester, questionnaires were distributed to the treatment groups to collect information pertaining to the research purpose. Questionnaire in this study was adopted and adapted from Stepp-Greany (2002). Likert scale are used for most of the items asked in the questionnaire, which 1 stands for very disagree, and 5 stands for very agree.



**Figure 1: A Typical Interface of the Learning Materials**



**Figure 2: The Interface Showed the Number of Time Students Used the CD**

<a href="#">Soalan Tahun Lepas</a>  <a href="#">Budaya Cina</a> <a href="#">Maklumat Pensyarah</a>  <b><a href="#">Kamus Digital</a></b>  Anda telah mencapai 3 kali ke CD ini.  <b>Resolusi: 800 x 600</b>	<a href="#">Bab 1: Ucapan</a>	<a href="#">Kata tanya (2)</a>
	<a href="#">Bab 2: Nama</a>	<a href="#">Kata tanya (3)</a>
	<a href="#">Bab 3: Adakah</a>	<a href="#">Peralatan Kegunaan Sekolah [Ruju</a>
	<a href="#">Bab 4(1): Nombor</a>	<a href="#">Frasa Berguna [Rujukan]</a>
	<a href="#">Bab 4(2): Nombor Telefon</a>	<a href="#">Dialog Ikut Bab [Bab 1]</a>
	<a href="#">Bab 5: Keluarga</a>	<a href="#">Dialog Ikut Bab [Bab 2]</a>
	<a href="#">Bab 6: Umur</a>	<a href="#">Dialog Ikut Bab [Bab 3]</a>
	<a href="#">Bab 7: Tarikh</a>	<a href="#">Dialog Ikut Bab [Bab 4]</a>
	<a href="#">Bab 8: Hari dalam Seminggu</a>	<a href="#">Dialog Ikut Bab [Bab 5]</a>
	<a href="#">Bab 9: Masa</a>	<a href="#">Dialog Ikut Bab [Bab 6]</a>
	<a href="#">Bab 10: Tempat</a>	<a href="#">Dialog Ikut Bab [Bab 7]</a>
<a href="#">Bab 11: Kata Kerja (1)</a>	<a href="#">Dialog Ikut Bab [Bab 8]</a>	

**FINDINGS**

**Figure 3: Descriptive Statistics: Background of the Respondents**

	N				
Computer skills	58	Minimum 2	Maximum 3	Mean 2.36	Std. Deviation.485
Personal computer	58	25 have	33 don't	-	-

Figure 3 showed the general background of the respondents. For computer skills, in a scale of 3, the students rated themselves as 2.36, slightly higher than 2, which was fairly good. This indicated that the students were quite competent in using computer with 43.1% (no=25) of students having their own PC, and 56.9% (no=33) of students did not have PC. That means these students had to use their friends' computers, during lab time, go to a cyber-café, etc.

**Figure 4: Frequency of Using CD**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Below 10	5	8.6	8.6	8.6
10 - 15	19	32.8	32.8	41.4
16 - 20	16	27.6	27.6	69.0
21 - 25	8	13.8	13.8	82.8
Above 25	10	17.2	17.2	100.0
Total	58	100.0	100.0	

Figure 4 showed the number of times students had used the CD throughout the semester, 32.8% (no=19) of the students used 10 – 15 times, followed by 27.6% (no=16) of the students used 16 – 20 times, 17.2% of the students (no=10) used above 25 times, 13.8% (no=8) of the students used 21 – 25 times, with 8.6% (5) of the students used the CD below 10 times. For each time of use, the time spent was defined as about one hour.

**Figure 5: Descriptive Statistics – Access to Lab, Computers and Equipment in the Campus**

	N	Minimum	Maximum	Mean	Std. Deviation
1. Lab access	58	2	5	3.43	.819
2. Cyber-cafe	58	2	5	4.00	.592
3. Lab access	58	1	5	3.00	.991
4. Without going to lab	58	1	5	3.81	1.067
5. Use own PC	58	1	5	2.53	1.096
6. Must go to lab	58	1	5	2.86	1.357
7. Use friend's PC	58	1	5	3.36	1.150
8. Speakers work	58	1	5	2.86	1.263
9. Fully occupied	58	1	5	3.71	.899
10. Not enough speakers	58	1	5	3.71	.991
Overall perception	58	2.00	3.70	2.9345	.36493

Figure 5 showed findings on the students' perceptions on the access to lab, computers and equipment in the campus. Generally, the students were having quite moderate view on the access to lab, computers and equipment in the campus, with mean value equals to 2.9345. Nevertheless, the students still need to go to a cyber-café to use computer (mean = 4.00). They agreed that they had the flexibility of not going to a lab (mean = 3.81). While they complained that the computer labs were always occupied (mean = 3.71) and the speakers in the lab were not enough (mean = 3.71). Basically, the students viewed that access to labs or computers were moderately adequate.

**Figure 6: Descriptive Statistics – Effect on Receptive Skills – Listening and Reading Skills**

	N	Minimum	Maximum	Mean	Std. Deviation
1. More time	58	1	5	3.83	.729
2. Regular class listening	58	1	5	3.88	.818
3. Improve listening	58	1	5	3.97	.725
4. Pronunciation	58	2	5	4.02	.827
5. Complete activities	58	2	5	3.50	1.064
6. Regular class reading	58	2	5	4.09	.708
7. Improve reading	58	2	5	3.84	.875
8. Confidence	58	2	5	3.79	.720
9. Read more	58	2	5	3.78	.859
10. Helpful	58	2	5	4.21	.695
Overall perception	58	2.30	4.20	3.3897	.39986

Figure 6 showed findings on the students' perceptions toward the effects of CD on their receptive skills, which were listening and reading skills. Generally, the students had positive point of view on the effects of using CD to improve their listening and reading skills (mean = 4.20). They claimed that the reading activities were very helpful (item 10, mean = 4.21). Nevertheless, the students still value their learning in a regular Mandarin class (item 6, mean = 4.09).

**Figure 7: Descriptive Statistics – Perceptions on Receptive Skills – Speaking and Writing Skills**

	N	Minimum	Maximum	Mean	Std. Deviation
1. More time	58	1	5	3.83	.729
2. Regular class speaking	58	2	5	3.84	.745
3. Improve speaking	58	2	5	3.79	.767
4. Pronunciation	58	2	5	3.97	.725
5. Intonation	58	2	5	3.88	.703
6. Complete activities	58	2	5	3.53	1.047
7. Regular class writing	58	3	5	3.93	.722
8. Improve writing	58	1	5	3.69	.821
9. Write better	58	2	5	3.74	.807
10. Helpful	58	2	5	4.05	.759
Overall perception	58	2.30	4.20	3.3741	.40330

Figure 7 showed the effects of using CD on the speaking and writing skills. Findings suggested that the CD was moderately helpful in improving the students' speaking and writing skills (mean = 3.3741). The students agreed that generally the writing activities in the CD were very helpful (item 10, mean = 4.05). They claimed that they could learn to pronounce Mandarin intonation after using this CD (item 4, mean = 3.97). At the same time, the students did appreciate their learning in a regular Mandarin class (item 7, mean = 3.97).

**Figure 8: Descriptive Statistics – Perceptions on Interest and Relevance**

	N	Minimum	Maximum	Mean	Std. Deviation
1. Interesting	58	2	5	4.12	.651
2. Enjoy	58	3	5	4.12	.623
3. Relevant	58	3	5	4.14	.605
4. Enjoy	58	2	5	3.84	.721
5. Boring	58	1	5	2.43	1.094
6. Choice CD	58	1	5	3.29	.838
7. Helpful	58	3	5	4.00	.649
8. Use in exam	58	2	5	3.93	.746
9. Too simple	58	1	5	3.16	1.005
10. Helpful in real	58	1	5	3.90	.831
Overall perception	58	2.60	4.70	3.7397	.42712

Figure 8 showed the findings on students' perceptions on the effect of CD used toward their interest and relevance. Succinctly, the students perceived that the CD used was moderately helpful in increasing their learning interest (mean = 3.7397). Fundamentally, the students agreed that the learning experiences of using this CD made the Mandarin course a more interesting one (item 1, mean = 4.12). They agreed that they really enjoyed the interactive language-learning activities in this CD (item 2, mean = 4.12). This was because the tasks they performed on the CD were relevant to their Mandarin course content (item 3, mean = 4.14). Thus, all the activities in this CD were deemed as relevant to their need and could really help them to learn Mandarin better (item 7, mean = 4.00).

**Figure 9: Descriptive Statistics – Perceptions Concerning Effect on Confidence as a Learner, Technical Skills, and Class Assessments**

	N	Minimum	Maximum	Mean	Std. Deviation
1. Computer-literate	58	1	5	3.97	.794
2. Confidence	58	2	5	3.95	.711
3. Active learner	58	2	5	3.93	.814
4. Don't know how to use CD	58	1	5	1.95	1.130
5. Use technology	58	1	5	3.83	.939
6. Technical skills	58	1	5	3.69	.977
7. Learn better	58	2	5	4.03	.591
8. Speaking test	58	2	5	3.97	.674
9. Oral test	58	2	5	3.90	.718
10. Listening	58	2	5	4.03	.748
Overall perception	58	2.60	5.00	3.9259	.54758

Figure 9 showed the findings on the effects on confidence as a learner, technical skills, and class assessment. Briefly, the perception was moderately positive (mean = 3.9259). Students asserted that their experiences in the computer-assisted learning helped them to learn better (item 7, mean = 4.03). Students claimed that CD helped them to speak Mandarin more accurately (item 8, mean = 3.97), to do better in their oral tests (item 8, mean = 3.90) and to do better in their listening tests (item 9, mean = 4.03).

## DISCUSSION, IMPLICATION AND SUGGESTIONS

Incorporating CD into Mandarin learning has become increasingly important. The new media will not solve the basic problem of learning a foreign language outside the target language area but they do enable teachers to react to the existing limitations in an innovative and imaginative way and permit the boundaries of classroom learning to be pushed back further by integrating elements of natural language acquisition (Rösler, 2000).

In general, the students were having quite moderate point of views in the aspect of access to labs, computers and equipment in the campus. This brings the implication that the access to labs, computers and equipments in the campus has to be increased to facilitate the usage of CD in supplementing Mandarin-learning.

On top of that, the students were having positive perceptions on the effects of CD to improve their listening and reading skills, yet they still value their learning in regular Mandarin classes. It showed that CD should be integrated in their face-to-face instruction, but not to replace the normal Mandarin classes.

CD was also perceived as moderately helpful in improving the students' speaking and writing skills. Basically the CD was very handy in improving students' learning especially in mastering the correct Mandarin intonation. In the same way, the students still appreciate regular classroom setting in improving their speaking and writing skills. It showed that CD shouldn't substitute the role of instructor in bringing authentic learning gains.

Besides, the students perceived that the CD used was moderately helpful in increasing their learning interest. Fundamentally, the students agreed that the learning experiences of using this CD made Mandarin course a more interesting one. It implies that CD used should be encouraged to maximize the learning motivation as the tasks they performed on the CD were relevant to their Mandarin course content. This also implies that instructors should be engaged in the CD production process. They should be trained technologically and actively involved in the making of CD that will be used in the classroom.

Concerning the effects of using CD on students' confidence as a learner, technical skills, and class assessment, briefly, the perception was moderately positive. Students asserted that their experiences in the computer-assisted learning helped them to learn better. Students claimed that the CD helped them to speak in Mandarin more accurately, to do better in their oral tests and to do better in their listening tests. This implies that the integration of computer-assisted learning method is a necessity to enhance the learning effect.

Thus, the role of an instructor as facilitator is important and complex in technology-enhanced environments and involves well-developed instructional skills (Glisan, et al., 1998; Kern, 1996; Weiss, 1994). In a nutshell, the training provided for instructors are essential to substantiate the practicability of utilizing CD to supplement the on-campus Mandarin courses.

## **CONCLUSION**

This study has discussed the perceptions of UiTM Terengganu Campus students about Mandarin-learning in a CD-supported environment. Reports in the research note that teachers' jobs are harder in the early stages of a technology's implementation, that positive changes from technology are more evolutionary than revolutionary, and that these changes occur as teachers become more experienced with the technology (Weiss, 1994).

This study has several limitations. The number of respondents should be increased and replicating the research in different branch campus settings would help in validating the research findings. Therefore the finding of this research cannot be generalized to every branch campus, as each branch will have its own characteristics and approaches in teaching Mandarin as the third language. Furthermore, there are others foreign language courses such as French, Arabic, etc. offered in other campuses, thus, comparative studies

should be done in validating the findings. Comparative studies should also be carried out to compare the effect of CD on different foreign languages courses. Subsequently, this research supposition is also consistent with the conclusion made by Goh, Florence Chee & Chian (2006) that CD should be use extensively to supplement the teaching and learning processes of Mandarin courses in MARA University of Technology, Malaysia specifically as a viable learning kits, and for general Mandarin learning purpose.

As a conclusion, we would anticipate a feasible and viable use of CD in supplementing the on-campus Mandarin courses in UiTM in the near future. By then, our learners will sure be benefits in this innovative use.

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