Contemporary Questions in CALL Theory, Research and Practice

CALL and Chinese Language Teaching
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Massey University, New Zealand
Outline

I. Fundamentals of CALL: history, modes and media

II. Potential benefits, how to evaluate CALL

III. Current trends in CALL

IV. Current research in technology-mediated Chinese language teaching
   » Synchronous interaction
   » Second Life
   » Mobile character learning strategies
   » WeChat and teacher communities of practice

V. Conclusion: Best practice in CALL research
What is CALL?

**Computer Assisted Language Learning**

Traditional definition: CALL can be used in a broad sense to refer to any endeavour involving the computer in some significant way in language teaching and learning.
Interactive effects

CALL tools & settings

Language teaching & learning practices
An early functional distinction: computer as tutor vs tool

Computer as a tutor

The computer has a teaching function
e.g. it delivers interactive materials or practice materials

Computer as a tool (mediation function)

The learner uses technology to carry out a task. It is a means for learners to experience authentic language and communication opportunities
Other Acronyms

- CMC
- NBLT
- CSCL
- ICT
- DLL
- MALL
Use of technology for....

Distribution

- Broadcasts
- World Wide Web

Interaction/
Communication

- Email
- Computer conferencing
An Early Model: Chinese Distance Language Teaching at the University of South Africa

White, 2003 p. 220
Media used in language learning

The fundamental media used in language teaching:

- Text
- Audio
- Video
- Images
Features of the Course  (White, 2003 pp. 219-220)

1. opportunities for individual study working with a range of learning sources

2. orientation is provided through a videotape

3. learner support functions are for the most part optional and group-based

4. individual support is available from the tutor via e-mail

5. group discussions using teleconferencing/vidoeconferencing are scheduled to coincide with assignment submission times

6. the use of mentors, or ‘peer proctors’ in face-to-face study groups

7. the tutor initiates some interactions with learners, and provides a range of opportunities for contact with her

8. teaching functions and support functions are largely separated, except for tutorial letters which offer encouragement, and guidance about the learning process
Early history of CALL (Warschauer 1996)

Behavioristic CALL

Communicative CALL

Integrative CALL: Multimedia CD-ROM

Integrative CALL: Internet
The World Wide Web

• the Web (Tim Berners-Lee)
• the launch of Windows 95 in 1995
• the Web as a repository of authentic media
• expanded contexts for language use and transformed language practices
• CMC, virtual language schools
An Early Model: Chinese Distance Language Teaching at the University of South Africa

White, 2003 p. 220
Since 2000: the social turn

- Smart phones
  - Apps
  - Mobile learning
- Social media
  - Facebook
  - WeChat
  - Youtube
  - Skype
  - Blogs
- Games

... spaces where identities are formed, and social relationships are negotiated... new genres
Other Acronyms – they’re all important!

- ICT
- CMC
- NBLT
- CSCL
- DLL
- MALL
Use of technology for....

Information & Distribution
- Broadcasts
- World Wide Web

Interaction & Communication
- email
- computer conferencing

ICT: Information and Communication Technologies
CMC (Computer-mediated Communication)

- the functional roles of the computer as a tool expanded in the 1990s
- email became a popular means of communication and then chat
- the advent of e-tandem projects via email (social forms of learning)
Network-based Language Teaching

- Focuses on computer-mediated communication and the web
- It involves learning and teaching languages through the use of computers that are connected to one another in either local or global networks
- Authentic communication
“Network-based language teaching does not represent a particular technique, method, or approach. It is a constellation of ways by which students communicate via computer networks and interpret and construct on-line texts and multimedia documents, all as part of a process of steadily increasing engagement in new discourse communities.”

CSCL

• Computer-supported collaborative learning

• An emphasis on collaborative projects

• A focus on how knowledge is built and negotiated through interaction
Discussing Pollution

Clelia: I was surprised to read that Kiwis don’t care about their environment! Since New Zealand has the image “clean and green” could it be that they are taking it for granted? ... This would be an interesting topic to discuss.

Kate: I don't think it's good to generalize. ....It makes me wonder what facts some articles are based on, and perhaps who was funding it? Is it an accurate depiction? Where is the proof to substantiate all this, and what tests are the results based on? There are people without concerns for the environment in every country, just as there are caring people in every country that are concerned and actively do their best to care for the environment.

Christine: I was also kind of shocked to hear about their big problem with a high level of pollution. The statistics have nothing in common with the images of New Zealand. ....
Q2. Would you get one?
Yes - no-one
No - 12 males, 14 females.
Full face on males. Q1 Do you like/dislike them?
Males - 1 like, 9 dislike, 3 don't care.
Females - 1 like, 12 dislike.
Q2. Would you get one?
No - 12 males.
Chin Tattoos on females. Q1. Do you like/dislike them?
Males - 1 like, 10 dislike.
Females - 4 like, 7 dislike, 2 don't care.
Q2. Would you get one?
No - 14 Females.
Other Acronyms

- ICT
- CMC
- NBLT
- CSCL
- DLL — Digital Language Learning (digital devices)
- MALL — Mobile Assisted Language Learning
Key concepts

- Synchronous/Asynchronous
- Affordance
- Multimodality
Affordances & Constraints
Gibson (1977)

**Affordance:** potential for action; the action possibilities posed by objects in the real world

**Constraints:** constraints are factors that limit, contain, or help shape the development of movement

**Perception and appraisal processes** allow us to identify affordances and constraints of an object
Multimodality

**Mode**: the resources used to express meaning e.g. linguistic (written and/or spoken); visual mode (layout, photos, drawings); kinetic....
Multimodality

“Multimodality is the complex relationship that develops between multiple tools and modes when they are co-deployed in different combinations in learning situations to work towards particular objectives”

Chanier & Lamy 2017: 430
A SCOLT Session

Tell your tutor, and a

6) Bring some of your
often do the active
duplication of your
eg: 我有的时候
play basketball.

A: 你有时候去
B: 下午三点。
A: 在哪儿?
B: 在健身房游泳
A: 你游泳游得
B: 我游泳游得很
A: 你每天都去游泳吗？
B: 不，不每天。

Do you go to swim every day?

No, not every day.

面试 mianshi

跑步 paobu

散步 sanbu

市场 shichang

繁体 fanti vs 简体 jianti

辅导 fudao

招聘 zhaopin

聚会 juhui

nongchang 农场
## Modes and Media in CALL

<table>
<thead>
<tr>
<th>Temporality of the medium</th>
<th>Asynchronous</th>
<th>Synchronous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of the medium</td>
<td>Static</td>
<td>Dynamic</td>
</tr>
<tr>
<td>Examples of learning media</td>
<td>An online dictionary for children</td>
<td>A captioned video clip inserted in a learning environment</td>
</tr>
<tr>
<td>Semiotic modes</td>
<td>Textual (written definitions) and visual (accompanying illustrations)</td>
<td>Textual (subtitles), aural (reporter’s voice, interviews), visual (video images)</td>
</tr>
<tr>
<td>Channels</td>
<td>Visual/pictorial and/or auditory/verbal</td>
<td></td>
</tr>
</tbody>
</table>

Outline

I. Fundamentals of CALL: history, modes and media

II. **Potential benefits, how to evaluate CALL**

III. Current trends in CALL

IV. Current research in technology-mediated Chinese language teaching
   » Synchronous interaction
   » Second Life
   » Mobile character learning strategies
   » WeChat and teacher communities for practice

V. Conclusion: Best practice in CALL research
How can CALL improve language learning? (Hubbard 2009)

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Efficiency</td>
<td>learners are able to pick up language knowledge or skills faster or with less effort</td>
</tr>
<tr>
<td>Learning Effectiveness</td>
<td>learners retain language knowledge or skills longer, make deeper associations and/or learn more of what they need</td>
</tr>
<tr>
<td>Access</td>
<td>learners can get materials or experience interactions that would otherwise be difficult or impossible to get or do</td>
</tr>
<tr>
<td>Convenience</td>
<td>learners can study and practise with equal effectiveness across a wider range of times and places</td>
</tr>
<tr>
<td>Motivation</td>
<td>learners enjoy the language learning process more and thus engage more fully</td>
</tr>
<tr>
<td>Institutional Efficiency</td>
<td>learners require less teacher time or fewer or less expensive resources</td>
</tr>
</tbody>
</table>
Advantages of CALL materials
(Reinders & White 2010)

Organizational
• Access
• Storage and retrieval of learning behaviour records and outcomes
• Sharing and recycling of materials
• Cost efficiency

Pedagogical
• Authenticity
• Interaction
• Situated learning
• Multimedia
• New types of activity
• Nonlinearity
• Monitoring & recording
• Control
• Empowerment
How to Evaluate CALL?
Chapelle’s 2001 framework

1. Language learning potential
2. Meaning orientation
3. Language learner fit
4. Authenticity
5. Positive impact
6. Practicality

to provide ‘ideal cognitive and socio-affective conditions for instructed SLA’ (p. 45)
## Criteria for CALL Task Appropriateness (Chapelle 2001: 55)

<table>
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<th>Description</th>
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<tr>
<td>Language learning potential</td>
<td>The degree of opportunity present for beneficial focus on form.</td>
</tr>
<tr>
<td>Learner fit</td>
<td>The amount of opportunity for engagement with language under appropriate conditions given learner characteristics.</td>
</tr>
<tr>
<td>Meaning focus</td>
<td>The extent to which learners’ attention is directed toward the meaning of the language.</td>
</tr>
<tr>
<td>Authenticity</td>
<td>The degree of correspondence between the CALL activity and target language activities of interest to learners out of the classroom.</td>
</tr>
<tr>
<td>Positive impact</td>
<td>The positive effects of the CALL activity on those who participate in it.</td>
</tr>
<tr>
<td>Practicality</td>
<td>The adequacy of resources to support the use of the CALL activity.</td>
</tr>
</tbody>
</table>
An Evaluative Framework for MALL Resources (Reinders & Pegrum 2015)

- Educational Affordances in Learning Design
- General Pedagogical Design
- L2 Pedagogical Design
- SLA Design
- Affective
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Current Issues and Trends in CALL

- Virtual Worlds/Gamification
- Mobile-Assisted Language Learning
- Big Data
- Methodological Innovation
- Teacher Education
- Qualitative Research in CALL
Qualitative Research in CALL (Levy & Moore 2018)

- It emphasises what happens in natural settings, including the classroom, rather than what occurs under experimental conditions.
- It predominantly involves verbal rather than numerical data and analysis.
- It focuses on the individual experience.
- It attends to the particular attributes and parameters of the context.
- It uses a flexible, inductive, data-driven approach
Teacher CALL Expertise & Training: Three Models

1. TPACK (Koehler & Mishler 2005)

2. Skills for Teaching Languages Online (Hampel & Stickler 2005)

3. CoCAR (Lan Chan Cheng 2012)
TPACK: Technological Pedagogical Content Knowledge
(Koehler & Mishler 2005)
Skills for Teaching Languages Online (Hampel & Stickler 2005)

Diagram:

1. Own style
2. Creativity and choice
3. Facilitating communicative competence
4. Online socialization
5. Dealing with constraints and possibilities of the medium
6. Specific technical competence for the software
7. Basic ICT competence
Cognition-Action-Reflection (Lan, Chan & Cheng 2012)

CoCAR Model for online synchronous CFL teacher training p. 1023
Target language in four international CALL journals 2012-2015 (Sauro 2016)

CALICO Journal, Computer Assisted Language Learning, ReCALL, and LLT
Research Focus

**Language**: focus on form, negotiation of meaning, turns…..

**Learner/Teacher (Agent)**: motivation, emotion, attitudes, agency, expertise…

**Context (Environment)**: task, teacher feedback, online tools….
Language Learning & Technology is a refereed journal that began publication in July 1997. LLT disseminates research to foreign and second language educators worldwide on issues related to technology and language education.

- Language Learning & Technology is sponsored and funded by the University of Hawai‘i National Foreign Language Resource Center (NFLRC) and the Michigan State University Center for Language Education and Research (CLEAR).
- Language Learning & Technology is a refereed journal with an editorial board of scholars in the fields of second language acquisition and computer-assisted language learning. The focus of the publication is not technology per se, but rather issues related to language learning and language teaching, and how they are affected or enhanced by the use of technologies.
- Back and current issues of Language Learning & Technology are indexed in the Current Contents/Social and Behavioral Sciences, ISI Alerting Services, Institute for Scientific Information's (ISI) Social Sciences Citation Index (SSCI), Linguistics Abstracts, PsycINFO, and Social Scisearch databases.
- Since 2007, Language Learning & Technology has ranked in the top 20 Linguistics journals and in the top 20 Education journals in the Thomson Reuters Journal Citation Reports.
- Language Learning & Technology is published three times per year (February, June, and October).
<table>
<thead>
<tr>
<th>Year</th>
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<th>Authors</th>
</tr>
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<tbody>
<tr>
<td>2013</td>
<td>Learning Chinese idioms through iPads</td>
<td>Yang, Chunsheng; Xie, Ying</td>
</tr>
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<td>2013</td>
<td>Language development and scaffolding in a Sino-American Telecollaborative project</td>
<td>Jin, Li</td>
</tr>
<tr>
<td>2014</td>
<td>Does Second Life improve Mandarin learning by overseas Chinese students?</td>
<td>Lan, Yu-Ju</td>
</tr>
<tr>
<td>2016</td>
<td>Learning to express gratitude in Mandarin Chinese through web-based instruction</td>
<td>Yang, Li</td>
</tr>
<tr>
<td>2018</td>
<td>Flipping the classroom in teaching Chinese as a foreign language</td>
<td>Yang, Jia; Yin, Chengxu; Wang, Wei</td>
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on “Technology-mediated Chinese language teaching”
volume 12 (1) March 2018
Technology-mediated Chinese language teaching

Editorial

Cynthia White & Yanqun Zheng

Interaction patterns in synchronous Chinese tutorials

Lijing Shi & Ursula Stickler

The effects of 3D immersion on CSL students’ listening comprehension

Yu-Ju Lan & Chia-Ying Liao

Researching mobile-assisted Chinese-character learning strategies among adult distance learners

Kan Qian, Nathaniel Owen & Stephen Bax

Investigating the building of a WeChat-based community of practice for language teachers’ professional development

Grace Yue Qi & Yuping Wang
Interaction patterns in synchronous Chinese tutorials

Lijing Shi \textsuperscript{a} and Ursula Stickler\textsuperscript{b}

\textsuperscript{a}Language Centre, London School of Economics, London, UK; \textsuperscript{b}School of Languages and Applied Linguistics, The Open University, Milton Keynes, UK
Supporting Activities

Talking about ongoing activities in the negative

For present and past actions, use 不 bú or 無 méi in front of 在 zài (NOT 正在 zhèngzài):

• 我现在 不/没 在打工。 Wǒ xiànzài bú/méi zài dǎgōng. I am not working at the moment.

没 méi is more frequently used for the past action:

• 今天上午十点，我没在打工。 Jīntiān shàngwǔ shí diăn, wǒ méi zài dǎgōng. I wasn’t working at ten o’clock this morning.

A sample activity (Stickler & Shi 2018: 23)
Research Questions

RQ1: What are the patterns of interaction created by teachers and students in online language tutorials during different phases of the tutorial (greeting, teaching, farewell)?

RQ2: How are the patterns of interaction created by teachers and students in online language tutorials linked to pedagogic patterns and teaching strategies?
Phases of Interaction Patterns
(based on Sotillo 2000, Sinclair & Coulthard 1975)

Main Phases

Greetings

Instruction

Activation

Classroom Management

Feedback

Activation

Initiation

Response
<table>
<thead>
<tr>
<th>Phases</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Greetings</strong></td>
<td><strong>Examples</strong></td>
</tr>
<tr>
<td>Teaching</td>
<td>大家好 (Hello, everyone)!</td>
</tr>
<tr>
<td></td>
<td>• In Chinese, we can use ‘le’ to describe an action happened in the past...</td>
</tr>
<tr>
<td></td>
<td>• Please say this phrase in Chinese.</td>
</tr>
<tr>
<td></td>
<td>• Does anyone know how to say ‘play Taiji’?</td>
</tr>
<tr>
<td></td>
<td>• 你怎么去医院 (How do you go to hospital)?</td>
</tr>
<tr>
<td></td>
<td>• 跳舞 (dancing).</td>
</tr>
<tr>
<td></td>
<td>• 打太极拳 (playing Taiji).</td>
</tr>
<tr>
<td></td>
<td>• 我坐公共汽车去医院 (I go to hospital in bus).</td>
</tr>
<tr>
<td></td>
<td>• Well-done! / 说得好!</td>
</tr>
<tr>
<td></td>
<td>• Yes, 打太极拳, 太极 (play Taiji, Tai-jí).</td>
</tr>
<tr>
<td></td>
<td>• I see/ understand now.</td>
</tr>
<tr>
<td></td>
<td>• We can also use this one if you want to say ….</td>
</tr>
<tr>
<td></td>
<td>• Do you understand what was said?</td>
</tr>
<tr>
<td></td>
<td>• OK, now I’m going to send everyone to the breakout room.</td>
</tr>
<tr>
<td></td>
<td>• Now, I am going to add the action word.</td>
</tr>
<tr>
<td></td>
<td>• This is the end of today’s session.</td>
</tr>
<tr>
<td></td>
<td>• 再见! See you next time!</td>
</tr>
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</table>
Teaching activities in the long online tutorial (LT_TAs).

Warm-up and introduction

TA 1 Grammar point: past tense using ‘了/le’
- TA 1.1 Teaching past tense using ‘了/le’
- TA 1.2 Ss practise and translate
- TA 1.3 Expansion or section sum-up/feedback
- TA 1.4 Negating state verbs in past tense using ‘不/bu’
- TA 1.5 Breakout room in pairs: past tense using ‘了/le’ and ‘不/bu’n
- TA 1.6 Back to main room: past tense using ‘了/le’ and ‘不/bu’n

TA 2 Negative forms using ‘有/you/ have got, 没有/meiyou/ haven’t got’
- TA 2.1 T: introduces and explains the grammar point;
- Ss: practise the pronunciation of sample sentences and translate them
- TA 2.2 Breakout room in pairs: ‘有/you/ have got, 没有/meiyou/ haven’t got’
- TA 2.3 Back to the main room: ‘有/you/ have got, 没有/meiyou/ haven’t got’

TA 3 Question forms of past tenses using ‘吗 ma & 没有/meiyou’
- TA 3.1 T: introduces and explains the grammar point;
- Ss: practise the pronunciation of sample sentences and translate them
- TA 3.2 ‘吗 ma & 没有/meiyou’ continued
- T-Ss: ask and answers
- TA 3.3 Breakout room in pairs – ‘吗 ma & 没有/meiyou’ continued
- TA 3.4 Ss report back in the main room ‘吗 ma & 没有/meiyou’ continued;

TA 4 ‘不 bu ... 了 le / no longer’
- T: introduces and explains the grammar point;
- Ss: make own sentences and translate them in English.

TA 5 ‘离li / from’
- T: introduce and explain the grammar point;
- Ss: answer teacher’s questions individually

TA 6 ‘多长时间duo chang shijian / how long’
- TA 6.1 T: Introduce and explain the grammar point;
- T-Ss: ask and answer questions, teacher corrects pronunciation and explains the meaning.
- TA 6.2 Pair-work in breakout rooms
- TA 6.3 Back to main room – Ss: ask and answer the questions in a group.

Farewell
Enhancing Interaction

Stickler & Shi (2018)

Table 1. Interaction patterns during different phases.

<table>
<thead>
<tr>
<th>Phases</th>
<th>Long Tutorial</th>
<th>Short Tutorials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greetings</td>
<td>1.36%</td>
<td>2.16%</td>
</tr>
<tr>
<td>Teaching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instruction</td>
<td>3.62%</td>
<td>0</td>
</tr>
<tr>
<td>Activation</td>
<td>18.14%</td>
<td>19.42%</td>
</tr>
<tr>
<td>Initiation</td>
<td>8.14%</td>
<td>8.14%</td>
</tr>
<tr>
<td>Response</td>
<td>29.48%</td>
<td>25.90%</td>
</tr>
<tr>
<td>Feedback</td>
<td>32.65%</td>
<td>33.81%</td>
</tr>
<tr>
<td>Classroom Management</td>
<td>12.02%</td>
<td>17.27%</td>
</tr>
<tr>
<td>Total</td>
<td>95.92%</td>
<td>96.42%</td>
</tr>
<tr>
<td>Farewell</td>
<td>2.72%</td>
<td>1.42%</td>
</tr>
</tbody>
</table>

Overall interaction during the Long Tutorial_Teaching Activity 1.

Enhancing P-P-P

• Pass the baton

• Breakout rooms
The effects of 3D immersion on CSL students’ listening comprehension

Yu-Ju Lan and Chia-Ying Liao

The Department of Chinese as a Second Language, National Taiwan Normal University, Taipei, Taiwan

Picture vs Second Life

The Picture Approach
(At the Post Office)

Second Life (avatar-based)
(Night Market)
Research Questions

RQ1: What are the differences in the effects of using different combinations of listening aids (audio and pictures vs. audio and 3D virtual immersion) on CSL learners’ Chinese listening comprehension?

RQ2: What are the differences in the effects of using different combinations of listening aids (audio and pictures vs. audio and 3D virtual immersion) on CSL learners’ preferences for learning approach in terms of Chinese listening?
The Procedure

- Week 1: Training on Second Life operation
- Week 2: Location and direction, listening supported by 3D immersion → Listening
- Week 3: Transportation, listening supported by **pictures** → Listening comprehension test
- Week 4: Sending parcels, listening supported by **pictures** → Listening comprehension test
- Week 5: Renting a room, listening supported by 3D immersion → Listening comprehension test
- Week 6: Interview and learning preference questionnaire

Each topic lasted 50 minutes, once a week for 6 weeks.
Text 1

Inter-person conversation:

美美：你好，我想要寄包裹。
郵局人員：好的，請把包裹給我，請問這包裹裡面是什麼，要寄到哪裡呢？
美美：包裹裡面有三本書，還有一盒茶。我要寄到法國。
郵局人員：沒問題，那你寄空運還是海運呢？
美美：空運是什麼？海運又是什麼？
郵局人員：你的包裹搭飛機，叫做空運，我看看，寄到法國的話，兩個星期就到了。你的包裹搭船，叫做海運，差不多兩個月才會到。
美美：這麼久！那我當然選搭飛機的空運！請問空運的運費是多少呢?
郵局人員：空運的話，要三千元。
美美：三千元！為什麼那麼貴呀？
郵局人員：因為你的包裹又大又重，小的或輕的包裹比較便宜。
美美：那海運的話，要多少錢呢？
郵局人員：海運的話，八百元。
美美：那我也選海運吧。
郵局人員：好的，這是你的收據。

Test 1

1.請問女生要寄什麼去法國？
A 信。
B 皮包。
C 卡片。
D 書和茶。

2.請問寄海運要多久會到？
A 一個星期內。
B 兩個星期。
C 一個月。
D 兩個月。

3.請問男生說女生寄的東西怎麼樣？
A 又大又重。
B 又大又輕。
C 又小又重。
D 又小又輕。

4.請問女生最後花了多少錢寄東西?
A 八千元。
B 三千元。
C 八百元。
D 三百元。
Text and Listening Test

Text 2

Narrative

李先生上個星期收到了他在英國的朋友凱倫寄給他的明信片，他非常高興，因為他的興趣是收集世界各地的明信片，不管他出國去哪裡玩，他一定都會買當地的明信片作紀念。今天，李先生打算去郵局寄生日卡片和生日禮物給凱倫，因為兩個星期後是凱倫的生日。

李先生之前沒有寄過國際包裹，所以他到了郵局才知道寄包裹到國外分成兩種，空運和海運。空運比較貴，可是一個星期就到了。海運比較便宜，可是要一個月，來不及在凱倫生日前寄到。因為他不喜歡錯過朋友的生日，所以他決定還是郵寄空運，雖然空運比海運貴五百塊，但是這樣可以在凱倫生日前給她一個驚喜。

Test 2

1. 請問凱倫寄什麼給李先生？
   A 明信片
   B 生日禮物
   C 生日卡片
   D 信

2. 請問凱倫的生日是什麼時候？
   A 上個星期
   B 這個星期
   C 下個星期
   D 兩星期後

3. 請問寄空運的價錢比寄海運的價錢還？
   A 便宜 200 元
   B 貴 200 元
   C 便宜 500 元
   D 貴 500 元

4. 請問李先生最後決定怎麼做？
   A 他決定不寄了。
   B 他決定生日卡片和生日禮物都寄海運。
   C 他決定生日卡片和生日禮物都寄空運。
   D 他決定生日卡片寄海運，生日禮物寄空運。
Results of the CSL listening comprehension tests (N=21)

<table>
<thead>
<tr>
<th>Stages</th>
<th>Topics</th>
<th>Approaches</th>
<th>Mean</th>
<th>SD</th>
<th>t-test</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Location and direction</td>
<td>3D immersion</td>
<td>12.48</td>
<td>1.66</td>
<td>1.67</td>
<td>.119</td>
</tr>
<tr>
<td></td>
<td>Transportation</td>
<td>Picture</td>
<td>11.62</td>
<td>2.65</td>
<td></td>
<td></td>
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<tr>
<td>2</td>
<td>Sending parcels</td>
<td>Picture</td>
<td>12.57</td>
<td>3.10</td>
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<tr>
<td></td>
<td>Renting a room</td>
<td>3D immersion</td>
<td>13.90</td>
<td>2.93</td>
<td>1.919</td>
<td>.069</td>
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<tr>
<td>Average of 1 and 2</td>
<td>Average-3D immersive</td>
<td></td>
<td>13.19</td>
<td>1.75</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Average-Picture</td>
<td></td>
<td>12.10</td>
<td>2.38</td>
<td>2.423</td>
<td>.025*</td>
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</tbody>
</table>

Note: *p < .05  **p < .01  ***p < .001.
# Results of the Learning Preference Questionnaire (N=19)

<table>
<thead>
<tr>
<th>No.</th>
<th>Questions</th>
<th>3D immersion</th>
<th>Picture</th>
<th>df</th>
<th>Sig.</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Preferred approach</td>
<td>18 (94.73)</td>
<td>1 (5.26)</td>
<td>1</td>
<td>.000***</td>
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<tr>
<td>2</td>
<td>Benefit the comprehension of listening contents</td>
<td>17 (89.47)</td>
<td>2 (10.52)</td>
<td>1</td>
<td>.001**</td>
</tr>
<tr>
<td>3</td>
<td>Benefit the recalling of listening contents</td>
<td>17 (89.47)</td>
<td>2 (10.52)</td>
<td>1</td>
<td>.001**</td>
</tr>
<tr>
<td>4</td>
<td>Benefit concentration on listening contents</td>
<td>12 (63.15)</td>
<td>7 (36.84)</td>
<td>1</td>
<td>.251</td>
</tr>
<tr>
<td>5</td>
<td>Promote learning motivation</td>
<td>18 (94.73)</td>
<td>1 (5.26)</td>
<td>1</td>
<td>.000***</td>
</tr>
<tr>
<td>6</td>
<td>Benefit the likelihood to remember contents</td>
<td>15 (78.94)</td>
<td>4 (21.05)</td>
<td>1</td>
<td>.012*</td>
</tr>
<tr>
<td>7</td>
<td>Benefit the learning of Mandarin Chinese</td>
<td>17 (89.47)</td>
<td>2 (10.52)</td>
<td>1</td>
<td>.001**</td>
</tr>
<tr>
<td>8</td>
<td>Develop better comprehension of Chinese listening</td>
<td>15 (78.94)</td>
<td>4 (21.05)</td>
<td>1</td>
<td>.012*</td>
</tr>
<tr>
<td>9</td>
<td>Help learn Mandarin Chinese efficiently</td>
<td>18 (94.73)</td>
<td>1 (5.26)</td>
<td>1</td>
<td>.000***</td>
</tr>
<tr>
<td>10</td>
<td>Look forward to learning Mandarin Chinese in the approach</td>
<td>17 (89.47)</td>
<td>2 (10.52)</td>
<td>1</td>
<td>.001**</td>
</tr>
<tr>
<td>11</td>
<td>Enjoy the challenge of using the approach to learn Mandarin Chinese</td>
<td>17 (89.47)</td>
<td>2 (10.52)</td>
<td>1</td>
<td>.001**</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ***p < .001.
A: (Second Life) It’s more interactive. You can actually feel like you are there.

B: I think it’s better in Second Life. Because like…you can walk around. And you…I mean, there’s like an experience when you, like you feel like you are there.

C: Second Life可以看到很多東西, 可以想到答案很快。(I can see many objects in Second Life and that helped me quickly think of the answers.)

D: 因為Second Life…看到朋友一起比較好玩。(Because in Second Life, I can see that my friends were also in there, which was fun.)
Limitations of SL and students’ suggestions for improvements

F: I think if we use Second Life, uh… I think we not focus in the listening but we like the playing.

D: 學習或者看到漢字, 覺得有幫助。 (It will help if Chinese characters can be shown.)

G: 寫他的中文字，(比如說)好像這個叫什麼字。因為有其他的我們可以聽，但是，有時候我們忘記可以看看。」 (Showing the corresponding Chinese characters. (like…) what is the name of this. Although audio materials are available, we can always look at the characters if we forgot the contents sometimes.)
Researching mobile-assisted Chinese-character learning strategies among adult distance learners

Kan Qian, Nathaniel Owen and Stephen Bax

School of Languages and Applied Linguistics, The Open University, Milton Keynes, UK
Research question

What strategies do beginner distance learners of Chinese use when learning characters assisted by mobile technology?
Data Sources

- Online test
- Online survey (including character learning strategies)
- Email interviews
- Learning diary
Response format

• reflect on the strategies they had used since they began to learn Chinese
• participants were asked to choose one of four options reflecting their use of that strategy:
  ❖ ‘Never or almost never’
  ❖ ‘Generally not true’
  ❖ ‘Generally true’
  ❖ ‘Always or almost always true’
Top ten character learning strategies

1. I test myself to check if I have learnt the characters
2. I repeat the sound when the character is first introduced
3. I try to find a connection between the new character and previously learned characters
4. I try to visualise the character and compare it with a familiar shape
5. I listen to conversation by native speakers
6. I use an online dictionary to find out how the character is used in context
7. I focus on how the character is used in context
8. I practice the tone and associate it with pinyin
9. I say the character when writing it (either on digital device or paper)
10. I use pinyin input on my computer/digital device to choose/identify new characters
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Social & Affective Strategies

- ‘look up new characters in online dictionary before writing to Chinese friend; reusing characters my friend has used’ (student A8)

- ‘ask for help from a Chinese speaker when stuck’ (student A7)

- ‘write three or four sentences and play with the use of the words checking with Chinese speakers I occasionally have access to mainly through WeChat’ (student A6)

- ‘[…] my Chinese friend was impressed that I could remember the characters!’ (student A5)
Definition:

“Communities of Practice are groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis.”

Wenger, McDermott, and Snyder 2002, 4
Wenger (1998)

Dimensions of CoP

- Mutual Engagement
- Joint Enterprise
- Shared Repertoire
Research Questions

(1) In what ways did the teachers capitalise on WeChat affordances during their CoP building?

(2) What were the perceptions of teachers on their experiences of participating in the teacher WeChat group?

(3) What are the implications of using social media for CoP building for future teacher professional development?
## Participants

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Length of flipped teaching experience before the implementation of flipped classrooms</th>
<th>Reflective journal</th>
<th>Group chat interactions</th>
<th>Focus group discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yang</td>
<td>2 years</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Yi</td>
<td>2 semesters</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Hang</td>
<td>1 semester</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wan</td>
<td>1 semester</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ju</td>
<td>1 semester</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
Reflective Journal Topics

a. What do you think of this form of communication/collaboration?
b. Did you encounter any challenges, socially, culturally, and/or technically when interacting with other teachers in the group chat?
c. Do you have any suggestions for using the teachers’ group chat more effectively?
Mutual Engagement

Yang: (text message) (I) forgot reporting this week’s class. Nothing’s particularly important. Listen to it in your spare time.

Yang shares the details of what happened in class, the teachers’ reflections, and her collected students’ feedback, by sending three voice messages.

Yang: It’s raining today. Be careful when you two going out, especially @Yi driving to the Gold Coast. Working too hard!

Ju: A student just said that Logan has already been flooded...has @Yi arrived (at the Gold Coast)?

Figure 3. The teachers’ WeChat group: rapport building in mutual engagement 2
## Mutual Engagement

<table>
<thead>
<tr>
<th>Manifestation</th>
<th>Indicators from the study (archival data, reflections and focus group)</th>
</tr>
</thead>
</table>
| Relationships and rapport building through active involvement in the teacher WeChat group | • A valuable avenue  
• Friendly, warm, supportive and close social relationships |
Mutual Engagement: Reflective Journal & focus group (Yang)

• ‘by speaking to the group, it is easy to express your emotion. Sometimes the written text is very clear but seems very dry….’ (journal)

• “This WeChat group brings us much closer together than ever before. I had collaborated with other teachers, but because we couldn’t meet in person on a weekly basis, I didn’t know what they had taught in their class. In addition, we have been very honest with each other in the chats, and provided advice and suggestions. I don’t think this has happened in the past. With other teachers, no such close relationship and frequent communication have been established.” (focus group discussion)
Joint Negotiated Enterprise

Figure 4. The teachers’ WeChat group: testing translation function in joint enterprise.
Joint Negotiated Enterprise

<table>
<thead>
<tr>
<th>Manifestation</th>
<th>Indicators from the study (archival data, reflections and focus group)</th>
</tr>
</thead>
<tbody>
<tr>
<td>. Shared goals for enhancing learning experience and supporting students’ learning in the flipped classroom model</td>
<td>. Improvement of student learning</td>
</tr>
<tr>
<td>. Shared goal of developing flipped teaching skills</td>
<td>. Effective communication</td>
</tr>
<tr>
<td></td>
<td>. Increased work efficiency</td>
</tr>
</tbody>
</table>
Joint Enterprise: Focus Group Discussion (Ju & Yi)

Ju: “In terms of teaching related matters, I often use [the group chat] when preparing for my teaching. That is, I would briefly talk about what I will be teaching in the next lesson, or which part of content that hasn’t been covered. Just about lesson planning.”

Yi: “…especially after sending off our slides through email [to the team], we will discuss [them] here, providing suggestions and expressing our own thoughts.”
This photo was taken by Yi who was preparing a slide for character revision and preview.

Yang: @Yi, no need to teach every radical. Just select some key ones.

Yi: @Yang, That is what I am doing. Ok, I’ll follow your suggestion.

Yang: @Yi, this slide is quite good, please keep it (for rainy day).

Yang: @Yi, and make another one putting friend (peng), tomorrow (min), that (na) in the same group, etc.

Yi: Yeah, yeah, I am working on it.

Figure 6. The teachers’ WeChat group: providing feedback in shared repertoire.
## Shared Repertoire

<table>
<thead>
<tr>
<th>Manifestation</th>
<th>Indicators from the study (archival data, reflections and focus group)</th>
</tr>
</thead>
<tbody>
<tr>
<td>. A shared repertoire of idea exchanges</td>
<td>. Idea exchanges</td>
</tr>
<tr>
<td>. Feedback provision</td>
<td>. Collaborative reflection</td>
</tr>
<tr>
<td>. Collaborative reflections</td>
<td>. Feedback provided on teaching plans and reflections</td>
</tr>
</tbody>
</table>
Shared Repertoire: Focus Group Discussion (Yang, Ju & Yi)

• Reflecting together when implementing new interventions required by flipped classrooms
• Feedback on lecture slides and teaching reflections (Yi)
• A catalyst for delayed reflections (the WeChat archive)
Figure 9. The process of CoP building through the teachers’ WeChat group communication.
Practical Implications

• The value of a CoP for teachers in adopting an innovation – the flipped classroom
• WeChat as a teacher support tool
• WeChat as a professional development tool
• WeChat enabling teachers to extend their learning opportunities
What is now needed in CALL research:

1. Fewer experimental studies
   - Focus on authentic contexts for ecological validity
   - Give a rich description of the context and setting

2. Examine actual learner and teacher behaviour
   - Not just reported behaviour
What is now needed in CALL research (continued):

3. Fewer neophyte studies
   - Move beyond looking at participants learning to use a tool – analyse ‘expert’ use

4. Don’t just focus on the tool
   - Analyse actual learner and teacher activity, and how activity relates to learner needs and the wider curriculum
Archival Data Analysis: Re-examining the Toolbox

- **archival data** (recordings, transcripts)
- **elicited data** (questionnaires, narrative frames, learner journals, stimulated recall data, teacher journal)
- **performance/proficiency data**;
- **observational data**
Best Practice in CALL Research

- Tool-centric studies (avoid)
- Check prior research thoroughly (and build on that)
- Transferability
- Context (is everything)
- Triangulate
- Criticality & Complexity
Towards a framework......

..... to represent the complex, emergent and mutually-constitutive relationship between technology-mediated language learning contexts, language use, and learners as individual agents

Language-Agent-Environment
Implications

An important implication is that digital learning environments require and provide us with a different set of methodological and theoretical tools from which to understand contemporary language learning and their place and meanings within students’ everyday lifeworlds and identities.

White, Direnzo & Bortolotto 2016
The End

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