



Instructional Model for Global E-learning: Design and Implementation

Sue-Jen Chen, Ph.D.

chensj@uncw.edu

University of North Carolina Wilmington

Wilmington Sister Cities Symposium

April 16, 2012



Background

- ❖ UNCW Strategic Goal # 4
 - Create an educational environment that prepares students to be global citizens, succeed in 21st century society.
- ❖ Not every student can afford to study abroad
 - Sluggish U.S. economy has negatively impacted study abroad enrollments



Alternative: Cross-cultural E-learning

- ❖ Modern technologies allow more international connections via online courses.
- ❖ Students' cultural perceptions and experiences may influence online learning behavior and affect learning and interaction.
- ❖ Need an instructional model to guide the design and delivery of global e-learning courses.



Purpose of Presentation

- ❖ Introduce the Cross-cultural Online Collaborative Learning (COCL) Model for designing cross-cultural online learning environments and activities.
- ❖ Present the implementation results of COCL model in designing an online learning environment for U.S. and Chinese college students' collaborative learning



Theoretical Foundation

❖ Social construction of knowledge

- Social constructivists view learning as the social construction of knowledge through **interaction mediated by language** (Bonk & Cunningham, 1998; Vygotsky, 1978).
- Understanding intercultural communication involves studying **links between culture and communication** (DeFleur & Bal-Rokeach, 1982).



Theoretical Foundation

❖ Culture and Perception

- People behave according to their perceptions of the world.
- Cultural experience affects perception; therefore communication, including the potential for misinterpretation based on social misperception (Rohrlich, 1983; Samovar & Porter, 2002).



Theoretical Foundation

❖ Communication

- Communication and culture are inextricably interconnected especially through complex social processes of communication (DeWine, Gibson, & Smith, 2000).
- Differences in communication processes between Asian and English speakers:
- **Examples:**
 - ✓ **topic-comment order (Chinese) vs. comment-topic order (American)**
 - ✓ **high-context (Chinese) vs. mid/low-context communication (American)**
 - ✓ **higher power distance between teacher and student (Chinese)**



Model Building: Conceptual Framework

Based on

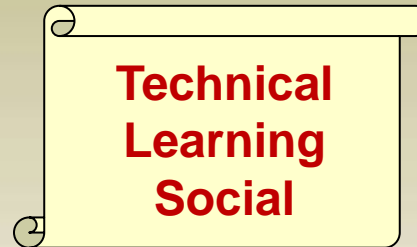
- ❖ Social constructivist theories and pedagogy
- ❖ Literature review
- ❖ Empirical study results



The model must address several issues of cross-cultural online learning

- ❖ **Learning environment** – supporting students' developing feelings of comfort & engagement

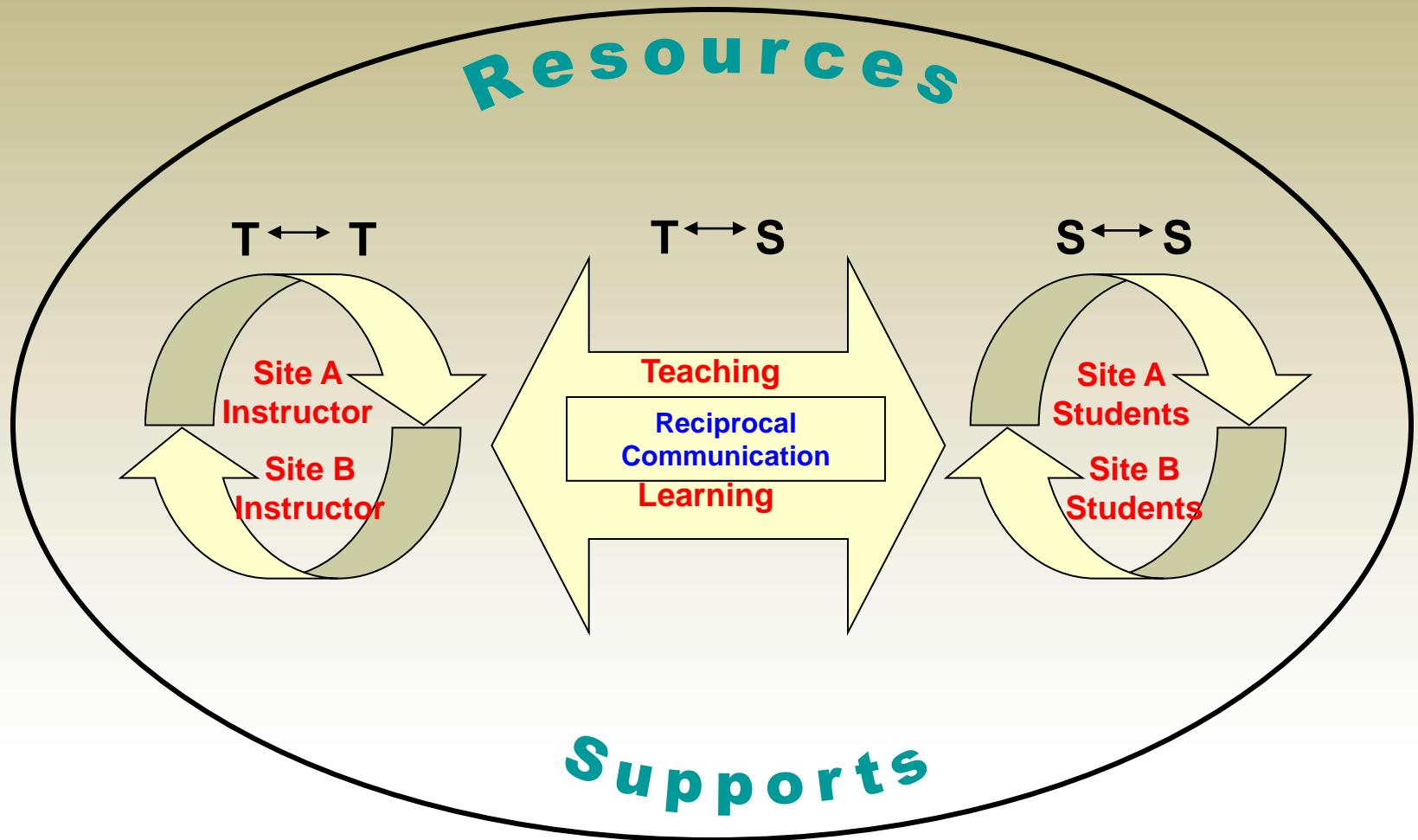
- **Resourceful**
- **Supportive**



- ❖ **Learning activities** – interactions (T-T, T-S, S-S within and across sites)

- **Cultural perception** - cultural awareness and sensitivity
- **Language and communication**

Global E-learning Instructional Model





How does the model work?

Resources

- Language/communication:
 - ✓ Tools to facilitate communication
 - Online dictionaries
 - Language translators
 - Virtual writing/editing center

- Culture/context:
 - ✓ Culture-specific knowledge bases/expert systems
 - Online encyclopedia
 - Virtual cultural museums
 - Lists of common expressions/idioms



How does the model work?

Resources

- Learning content
 - ✓ Productivity tools (software applications)
 - ✓ Subject knowledge (e.g. database, learning maps)

- Collaboration and communication tools
 - ✓ Learning management system
 - ✓ Horizon Wimba virtual classroom
 - ✓ Web2.0 tools
 - Skype, Google docs, social bookmarking
 - Aggregators, Podcasts and Mashups



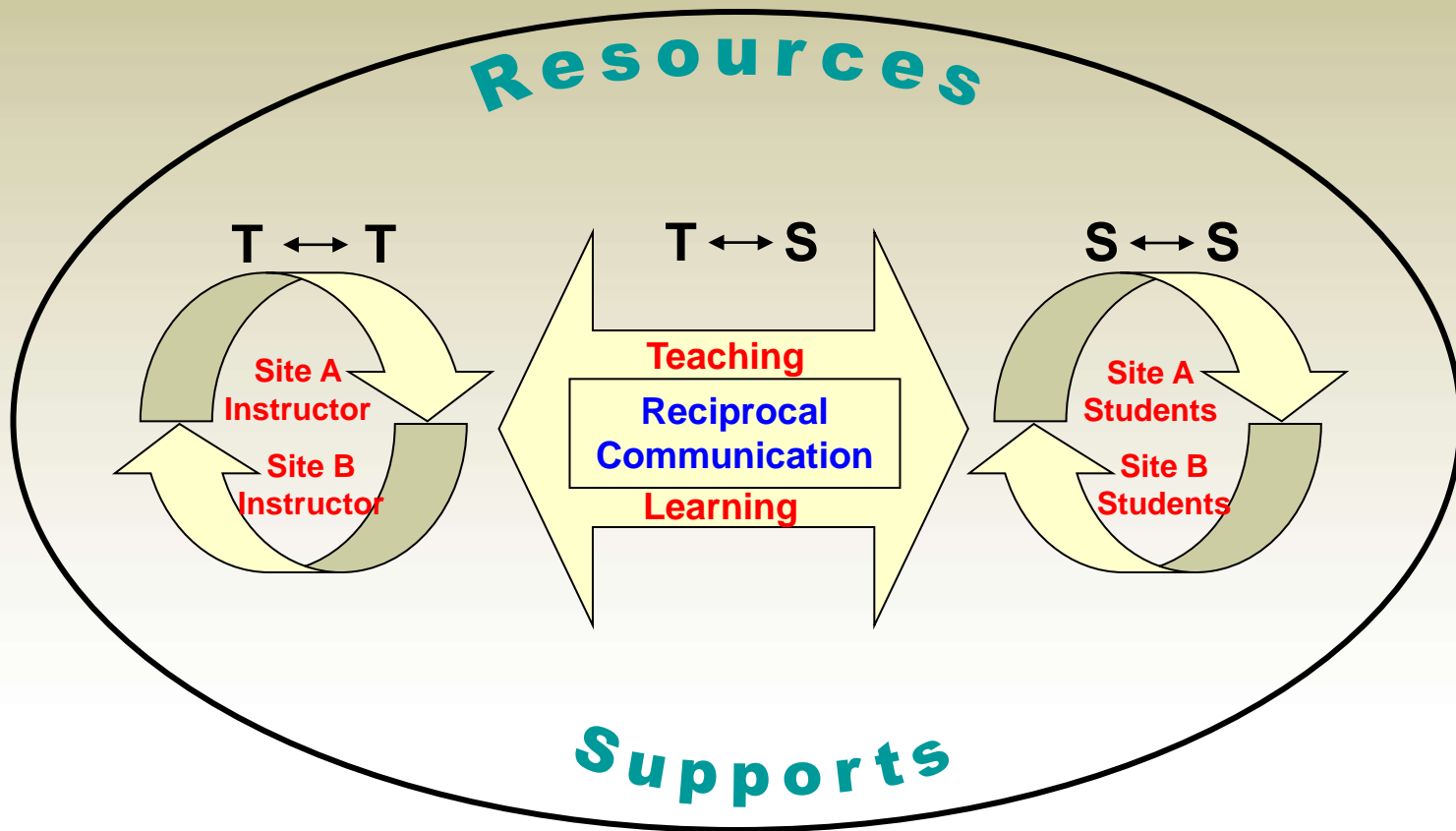
How does the model work?

Support Systems

- Technical support
 - ✓ Technical training workshop
 - ✓ Community “Technical S.O.S” forum
- Learning support
 - ✓ Appropriate use of instructional resources
 - ✓ Instructor guidance via modeling, coaching, scaffolding
 - ✓ Expert/peer inputs
- Social support
 - ✓ Instructors and students cultural awareness & sensitivity training
 - ✓ Instructors and students collaborative skill training
 - ✓ Community social forums, e.g. International lounge

How does the model work?

- ❖ Reciprocal communication
- ❖ Interdependent collaboration





How does the model work?

Instructional Planning & Implementation:

❖ Planning

- Preinstructional planning
 - ✓ Instructor cultural awareness & collaborative skills
- Instructional planning
 - ✓ Learner analysis
 - ✓ Instructional design: Learning tasks & activities
 - ✓ Assignment specification

❖ Implementation

- Orientation & training
- Instructional strategies (learning support: modeling, coaching, scaffolding)



Instructional Planning & Implementation

- ❖ Stage 1: Preinstructional planning
 - Instructor cultural awareness & collaborative skills training
- ❖ Stage 2: Instructional planning
 - Learner analysis
 - Instructional design: Learning tasks & activities
 - Assignment specification
- ❖ Stage 3: Designing learning environment and activities
 - Technical support
 - Learning support
 - Social support
 - Resources
- ❖ Stage 4: Instructional delivery
 - Orientation & training
 - Instructional strategies (learning support: modeling, coaching, scaffolding)



Methodology

- ❖ Mixed Methods Design: Survey data
 - Quantitative & Qualitative analyses



Data and Analysis

- ❖ Quantitative Results: Part A - Survey data
 - Mann-Whitney U-test of group median differences
 - 12/14 items-no group median differences
 - Q1 & 2 significantly different
- ❖ Qualitative Results: Part B
 - 169 adjectives describing course-related experiences
 - 3 categories: Positive, Neutral, Negative

Students' attitudes, feelings, and opinions about cross-cultural collaborative online learning?

No	Survey Items	Median			Mode		
		All N=65	U.S. n=37	China n=28	All N=65	U.S. n=37	China n=28
1	I had no technological problem using blackboard for online learning and communication.	4.00	5.00	3.00	5	5	3
2	Course resources (e.g., utilities, tutorials, handouts, sample work) helped support my learning needs.	4.00	5.00	4.00	4	5	3 ^a
3	Critiquing blog showcase helped me gain different perspectives and broaden my knowledge.	4.00	4.00	4.00	4	4	4
4	Blog comments helped improved my work and learning.	4.00	3.50	4.00	4	4	4
5	Social Lounge helped acquaint me with class peers.	4.00	4.00	3.00	3	4	3
6	Cultural blogs helped foster cultural awareness for cross-cultural learning.	4.00	4.00	4.00	4	4	4
7	I had much experience working with students from other country before this cross-cultural online learning experience.	2.00	2.00	2.00	2	2	2
8	I felt I was connected with my group to talk and learn together online	3.00	3.00	3.00	4	4	4
9	I felt I was connected with the class to talk and learn together online	4.00	4.00	3.50	4	4	3 ^a
10	The discussion with foreign peers contributed to my learning of subject content.	4.00	3.00	4.00	4	3 ^a	4
11	This cross-cultural collaborative learning contributed to my life experience.	4.00	4.00	4.00	4	4	3
12	This cross-cultural collaborative learning helped expand my global perspectives.	4.00	4.00	4.00	4	4	4
13	I would like to have similar cross-cultural online discussions in other courses.	4.00	4.00	4.00	4	4	4
14	Overall, my cross-cultural online learning experience was positive.	4.00	4.00	4.00	4	4	4



Mann-Whitney U-Test by Country

	Q1	Q2
Mann-Whitney U	280.0	255.5
Z-test	-3.32	3.69
p (2-tailed)	.001	.000

Note. Test of differences in response to Q1 and Q2 by U.S. and Chinese students.



	Response rates		
Response Categories	Overall	U.S.	China
Positive	82.2% (139/169)	82.57% (90/109)	81.67% (49/60)
Neutral	11.24% (19/169)	9.17% (10/109)	15.0% (9/60)
Negative	6.5% (11/169)	8.26% (9/109)	3.33% (2/60)

Note. N = 169 terms (all but one U.S. participant provided 3 terms as per directions); U.S., n = 109; China, n = 60.



I wish this course had done the following to facilitate my experience in the cross-culture learning:

China	US
<ul style="list-style-type: none">• Real-time, audio & video chat communication, face-to-face• More time, longer term communication• Communicate outside of Blackboard (i.e. Skype)• More learning information & materials• Communicate outside of Blackboard (i.e. Skype)• One-on-one long lasting friend• Bilingual, use Chinese to express our opinion• Other	<ul style="list-style-type: none">• Good experience• Wish it was longer• A way to communicate outside of Blackboard (i.e. Skype)• Smaller groups/One-on-one• Learn more about their educational requirements and social culture• Clearer instructions about how/what to talk about• Other



Use three adjectives to describe your overall experience in the cross-culture collaborative learning:

China	US
• Cherished/Enjoyable/Happy/Interesting/Fun (16)	• Fun/Exciting (21)
• Useful/ Beneficial/Valuable/Meaningful (15)	• Beneficial/helpful (19)
• Rewarding/Exciting/Unforgettable/Significant (9)	• Interesting (9)
• Amazing/Wonderful/Perfect/Nice/Positive (8)	• Informative (9)
• Effective/Efficient (3)	• Great (8)
• Other (8)	• Other (12)



Discussion & Conclusions

- ❖ Students' overall interpretations
 - Survey results from Parts A (Table 1) & B (Table 3) indicate that overall, students had very positive experiences.
- ❖ Potential for culture-related differences
 - Only 2 of 14 items significantly different between the two groups by country, Q 1 and Q2.
 - This result reinforces the interpretation of overall positive influences of the COCL Model on students' learning experiences.



Summary

- ❖ The model provides a blueprint for designing global cross-cultural e-learning environments and activities
- ❖ Need to further understand influences of cultural perceptions on communication & behavior in work groups
- ❖ Need to further validate the model

- ❖ Full-text publication is available at <http://www.gpejournal.org/index.php/GPEJ/article/viewFile/46/pdf>



Questions?

Thank you for attending!