Student experience of blended learning:

from the perspective of community of inquiry framework

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Agenda

- Blended Learning
- Community of Inquiry
- Case Study
- Results and Findings
- Social Presence, Cognitive Presence & Teaching Presence
- Beyond the Presences
- Conclusion

A Brief History of Blended Learning

- The use of educational technology since 1960s (Knapper & Cropley, 1999:139)
- The focus changes to e-learning in 1990s (Cambell, 2004)
- Limitation of e-learning: less satisfied and isolation (Sikora & Carroll, 2002; Cai & Yao, 2010)
- Blended approach is a more holistic approach in providing an overall learning environment (Bu & Bu, 2012).
- Among the definitions of blended learning, Garrison and Vaughan (2007) best define it. They said,

'Blended learning is the thoughtful fusion of face-to-face and online learning experiences. The basic principle is that face-to-face oral communication and online written communication are optimally integrated such that the strengths of each are blended into a unique learning experience congruent with the context and intended educational purpose' (2007:5).

Student Experience

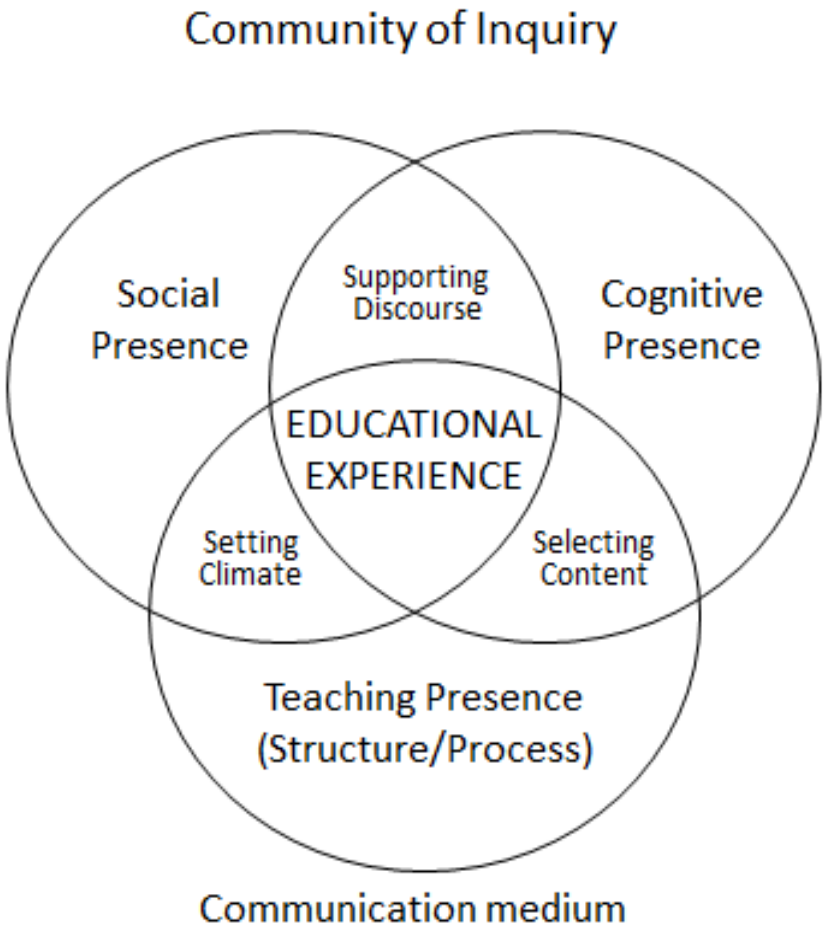
- The core of the interest in blended learning is to provide more engaged learning experiences (Garrison & Vaughan, 2008).
- In the context of online collaborative learning, constructivism is also considered as a theoretical foundation for technology and social studies integration in which learning occurs in the networked environment and the mediation of technology facilitate learner-to-learner interaction (Garrison & Anderson, 1998).
- Online learning moved the roles from teachers to students so that learning is controlled in the hands of learners (Chow & Cheung, 2008).
- Blended learning has increased the potential of self-learning (Rager, 2003) and active roles of online learners can contribute to knowledge construction in the blended learning environment (Shea & Bidjerano, 2010).
- Motivation is an important variable in successful distance learner autonomy (Lynch & Dembo, 2004). Self-motivation is central to most blended learning successes (Ting and Chao, 2013).

Community of Inquiry (CoI)

- Among the learning theories, social constructivist theories underpin much of the theoretical work on blended learning and these theories focus on how the tools are used in on-line environments to support inquiry and discovery learning (Al-Ani, 2013).
- The Community of Inquiry (CoI) model based on Dewey's social constructivist theory was evaluated and by Garrison, Anderson and Archer (2001) and was proposed as a framework for blended learning from a socio-constructivist perspective (Garrison & Vaughan, 2008).

'CoI framework as a unifying process that 'integrates the essential processes of personal reflection and collaboration in order to construct meaning, confirm understanding, and achieve higher-order learning outcomes' (Garrison & Vaughan, 2008: 29)

Community of Inquiry (CoI)



Adapted from Garrison, Anderson and Archer, 2001

Community of Inquiry (CoI)

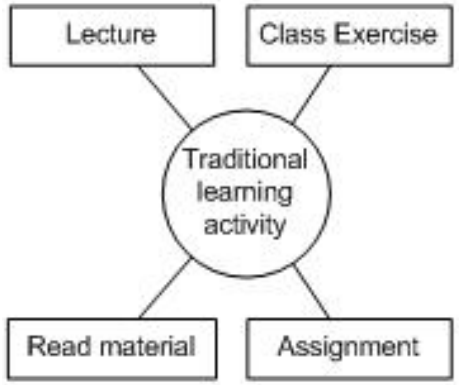
Elements, Categories and Indicators of CoI (Adapted from Garrison, 2007)

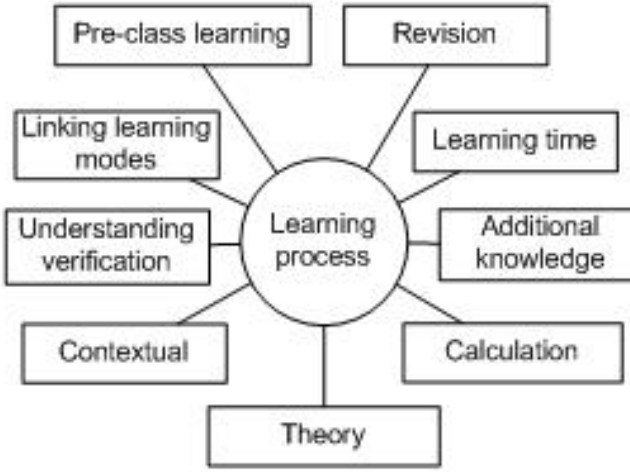
Elements	Categories	Indicators
Social Presence	Effective Expression Open Communication Group Cohesion	Emotions Risk-free Expression Encourage Collaboration
Cognitive Presence	Triggering Event Exploration Integration Resolution	Sense of Puzzlement Information Exchange Connecting Ideas Applying New Ideas
Teaching Presence	Design & Organization Facilitating Discourse Direct Instruction	Setting Curriculum & Methods Sharing Personal Meaning Focusing Discussing

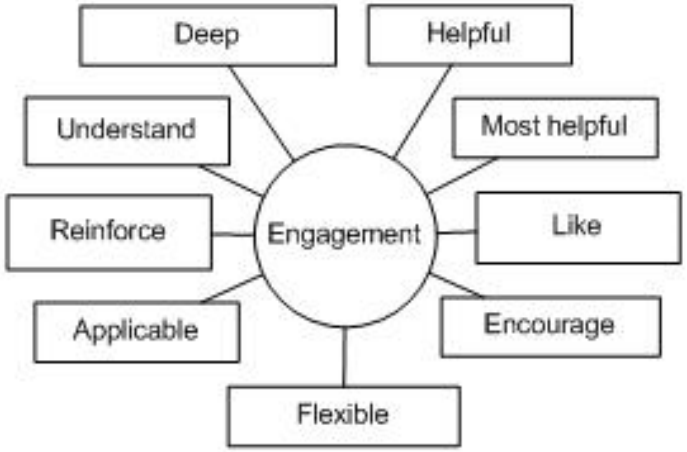
Research Approach

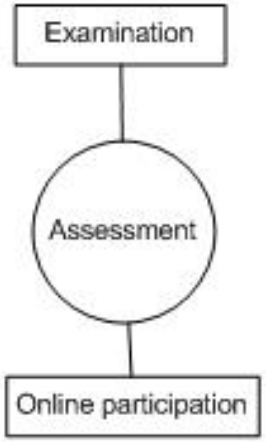
- Understanding student experience in blended learning and explore new issues
- Case study with inductive approach and instrumental study: assertion for 'particularization' (Stake, 1995)
- Management Accounting (MA) blended learning course in the School of Professional and Continuing Education, The University of Hong Kong
- Primary data source: Students' individual interviews
- Method and data triangulation: Class observation, study log with reflection, online participation observation, students' focus group interviews, teachers' individual interviews & course leader interview.
- Thematic Analysis (Braun and Clarke, 2006)

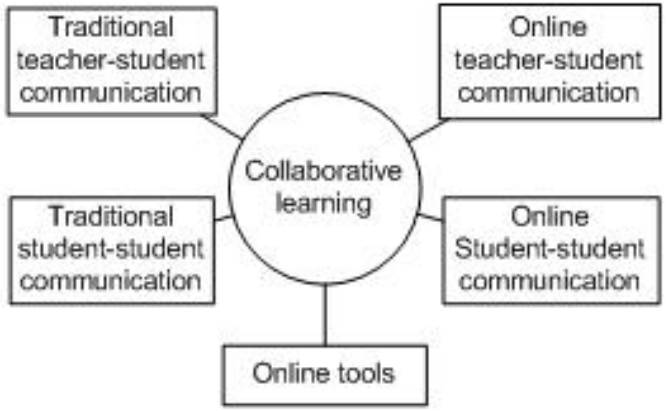
Thematic Map (1/2)

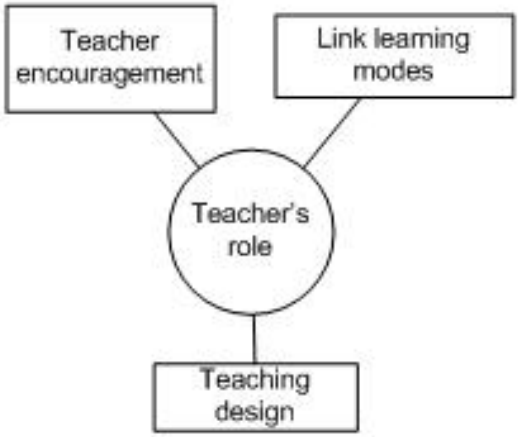


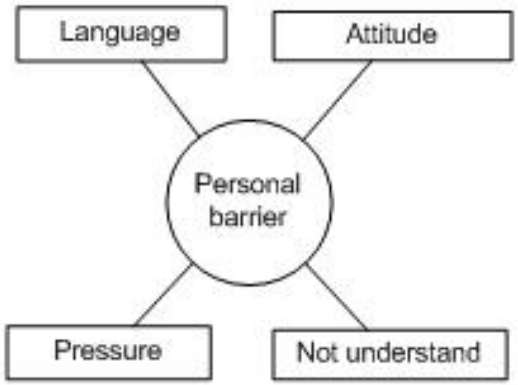


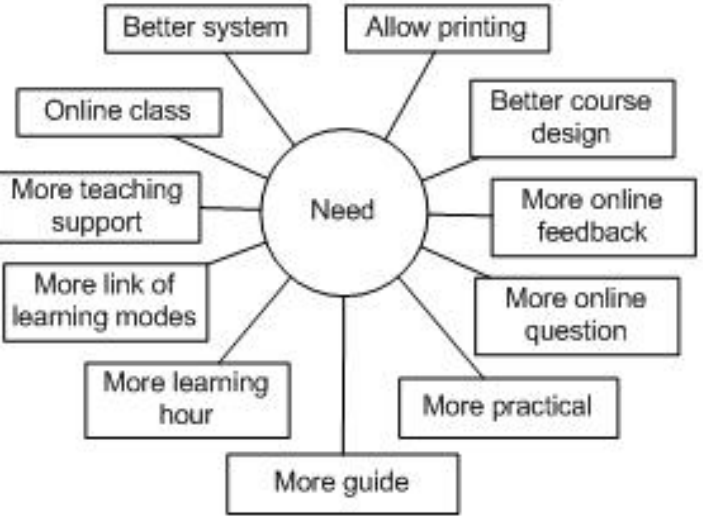


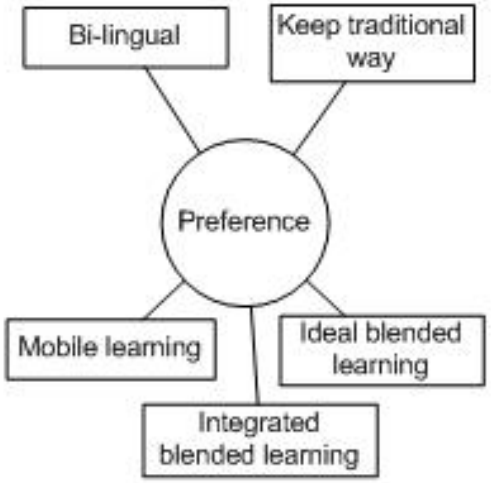


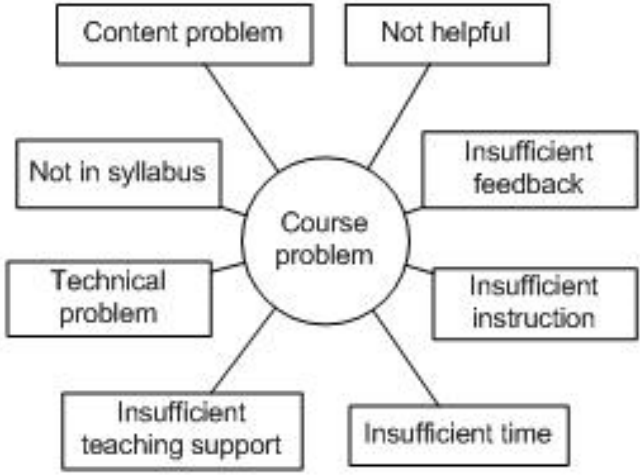






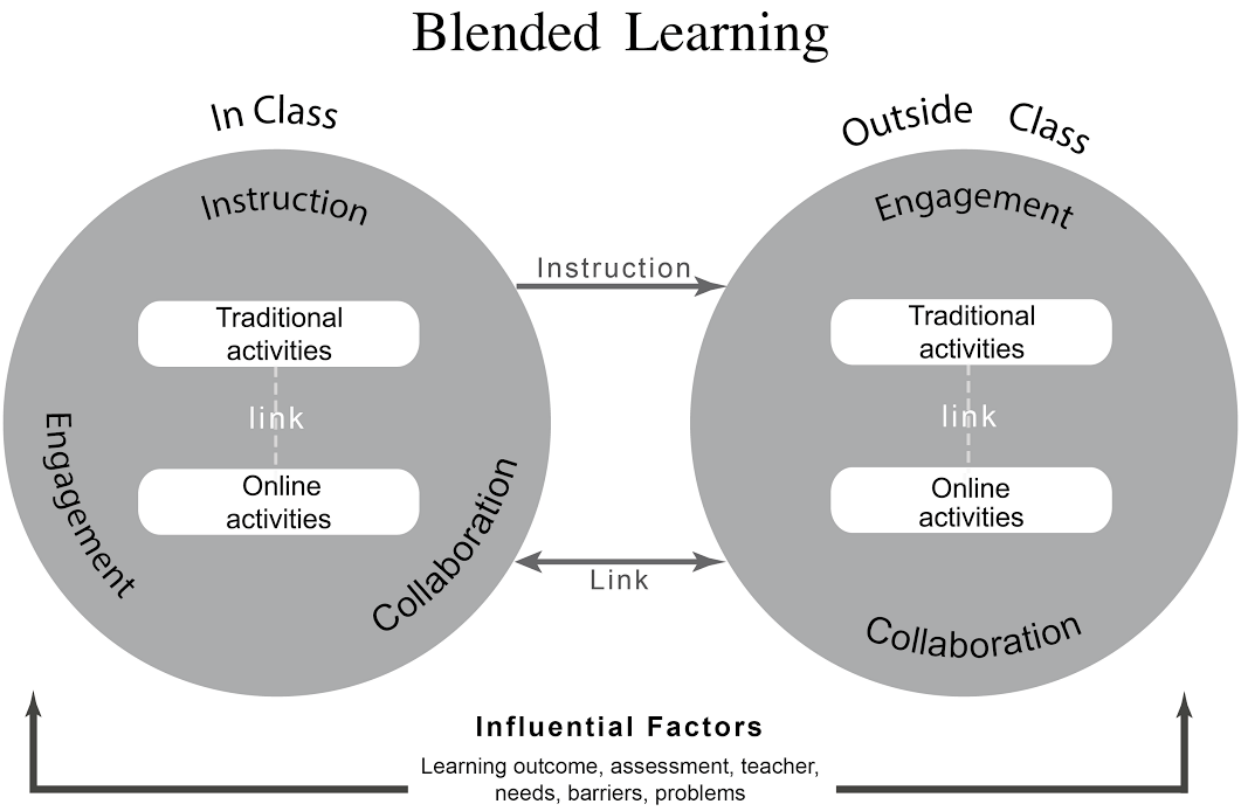






Thematic Map (2/2)

Findings



- 12 Themes: Constructed a conceptual model

Findings

Engaging in Blended Learning

- *Student A: We discussed the long question assignment which included some case studies. That meant we had to consider in various perspectives when answering the question. I preferred to look for the fast and simple method to discuss. It was a good method as I could find out the best method to answers the questions very effectively.*
- *Student B: It provided me more channels to communicate with others and it provided me a convenience way to seek for help. I didn't need to wait to ask when we meet in the school.*
- *Student C: It was good and made my learning easier and saved my time… I could learn faster and saved time when asking others and not searching answers by myself.*
- *Student D: They were really convenient.*
- *Student E: It is an effective way to ask for help if I had problems during studies.*

Findings

Engaging in Non-prescribed Online Collaboration

- *Student A: I remembered I used WhatsApp, Skype and Facebook with my classmates. We used Skype because it enabled real-time audio communication that I did not need to waste time to type the words in message and we usually scheduled a time to use it. For WhatsApp, it helped to get in touch with classmates anytime while we used Facebook mostly for sending documents.*

- *Student B: Usually when I was doing the exercises, when I did not understand how to do the calculation, I took a picture and sent it to classmates and asked them. After they completed it, they sent the answers with steps in a picture back to me.*

- *Student C: When I found difficulties in doing the exercises, I would send a text message or upload a photo for help. Then, others would reply to me via text or voice message. It would be better to use text or photo to present my queries instead of talking in phone. I usually use it at night when doing self-study.*

- *Student D: If I had problem in learning, I would tell others the page of the textbook. Also, I would take photos for those questions I did not know and then uploaded to the WhatsApp group. Then, they would return their feedback/ solution via typing in text. Text message was used than voice message since it would be quicker to read and we did not waste time to listen.*

Findings

Engaging in Non-prescribed Online Collaboration

- *Student E: When I found difficulty in a question, I printed the screen function and pasted to the MS Paint and marked down the problem. Then, I uploaded it to Skype… I usually typed the text or uploaded the photo… I printed the screens with graphics and pasted them into Skype for discussion.*

- *Student F: I searched by myself, or if I had the materials on hands, I scanned and uploaded it on Facebook... Facebook was usually used to transfer files. If classmates searched some materials that were useful, we shared them there.*

- *Student G: We could share the exercises via Facebook so that others could see them… Some of them were obtained from ACCA website and some of them were extracted from textbook. As not everyone could afford to buy a textbook, we shared the book's content in Facebook. When we found a question which was worth doing or for discussion, we would post it on Facebook and encourage others to do it. We would also solve the problem together.*

Social Presence

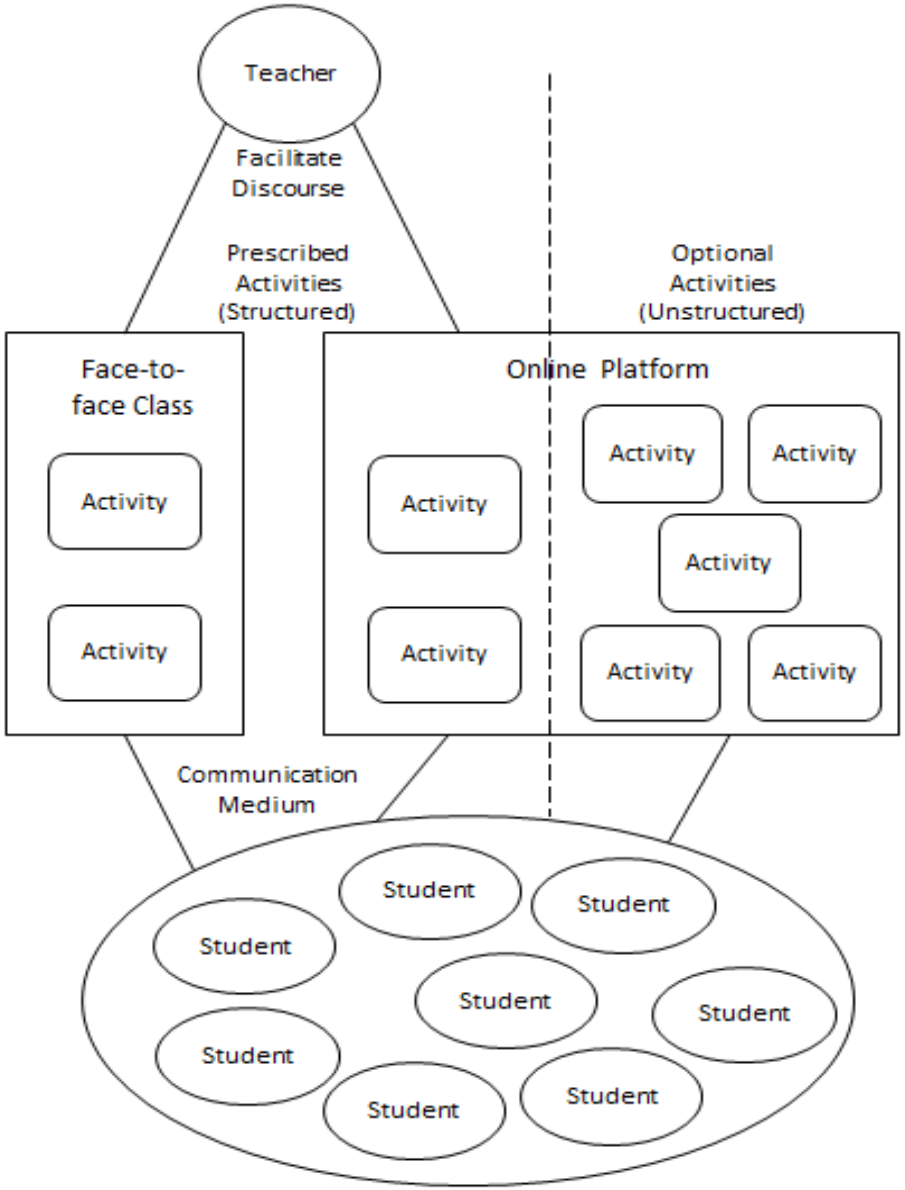
Elements	Categories	Indicators	Evidence	Example (Field Note of Class Observation)
Social Presence	Effective Expression	Emotions	Students felt happy in interacting with peers.	The students discussed happily with the peers when doing "Level Quiz" questions in groups.
	Open Communication	Risk-free Expression	Students discussed freely in communication	The students were allowed to freely discuss in groups without teacher's intervention. Besides, although English was the official language of the course, they were allowed to use their mother tongue for discussion.
	Group Cohesion	Encourage Collaboration	Students were encouraged to discuss in groups.	The teacher encouraged the students to do the "Level Quiz" in groups via discussion. After the group work, students were invited to demonstrate their calculation steps to the classmates. When they did the questions correctly, the teacher praised them.

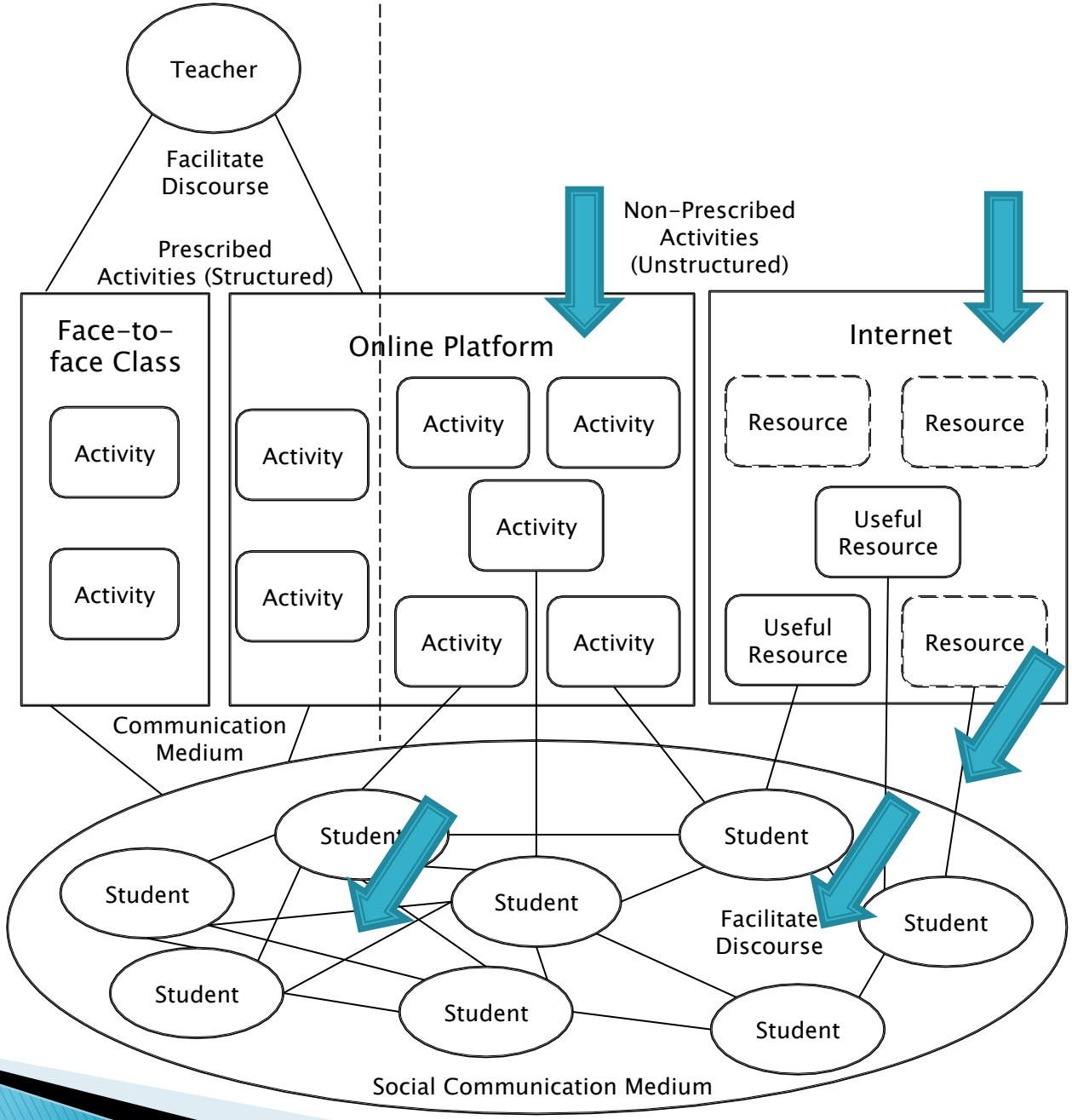
Cognitive Presence

Elements	Categories	Indicators	Evidence	Example (Quotes from Students' Individual Interview)
Cognitive Presence	Triggering Event	Sense of Puzzlement	Students were puzzled when they did not understand.	"When I first read the question, I didn't really understand what the question was talking about."
	Exploration	Information Exchange	Students asked questions, looked for answers in course materials or searched for hints in the Internet.	"I went to Google and used the keywords for searching and I found some hints for answer."
	Integration	Connecting Ideas	Students integrated the collected answers from exploration.	"After searching and reading more, I associated the similar results."
	Resolution	Applying New Ideas	Students posted the integrated solution to the online forum.	"After understanding more from them, I tried to answer the question by myself… Later on, with further searching and learning, I found that my answer posted was incorrect. So, I went to the forum again and modified the answer."

Teaching Presence

Elements	Categories	Indicators	Evidence	Example (Quotes from Teachers' Individual Interviews)
Teaching Presence	Design & Organization	Setting Curriculum & Methods	Teachers designed the pedagogy for having instruction and interaction in the class.	"I firstly assigned them to do (Thinking Forum) and then see their results. I checked what they did."
	Facilitating Discourse	Sharing Personal Meaning	Teachers facilitated students' collaboration in the class and gave opinion.	"I reviewed with them what I consolidated from their discussion online and shared the particular areas that they did not do well."
	Direct Instruction	Focusing Discussing	Teachers instructed students to have discussion.	"When they came back to class, I asked them to share."


Teacher
Facilitate Discourse
Prescribed Activities (Structured)
Optional Activities (Unstructured)
Face-to-face Class
Activity
Activity
Online Platform
Activity
Activity
Activity
Activity
Activity
Activity
Activity
Communication Medium
Student
Student
Student
Student
Student
Student
Student
Student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Activity
Activity
Activity
Activity
Internet
Resource
Resource
Useful Resource
Useful Resource
Resource
Communication Medium
Student
Student
Student
Student
Student
Student
Student
Facilitate Discourse
Social Communication Medium

Discussion: Beyond the Presences

- Example:
  - *"I found online references that were more suitable to my learning as the level of difficulty of the content would suit me most. I believed that my capability for information searching was better than my classmates though we all able to find the information eventually. Some of them were obtained from ACCA website. We found a question which was worth doing or for discussion. We posted it on Facebook and encouraged others to do it. We also solved the problem together. Sometimes, my classmates would ask for my help in searching for some information online."*
  - *"I was curious at first since I had found lots of the things in the online system, like playing games. In fact, I could not understand everything if I just attended Leo's lecture. Then, I tried to see whether the online activities could help my studies and found that those activities were useful for understanding. As a result, I tried to do the online activities, of course not limited to the silver and golden quiz."*
  - *"I took a picture and sent it to classmates and asked them. After they completed it, they sent the answers with steps in a picture back to me."*
- Commonly used online communication tools: WhatsApp, Skype & Facebook

Discussion: Beyond the Presences

- Students explained that they explored online learning activities because of curiosity or to look for more learning opportunities. This is a characteristic of academic motivation (Gottfried, 1990). Their actions in directing their own learning confirmed that online learning serves as learning options in which students can direct their learning (Bowen and Lack, 2013) and students can select their preferred blended options of learning (Duhaney, 2012).
- Engagement in non-prescribed learning activities with autonomous learning. Self-directed learning as defined by Knowles (1975) was demonstrated by the students in this blended learning

Discussion: Beyond the Presences

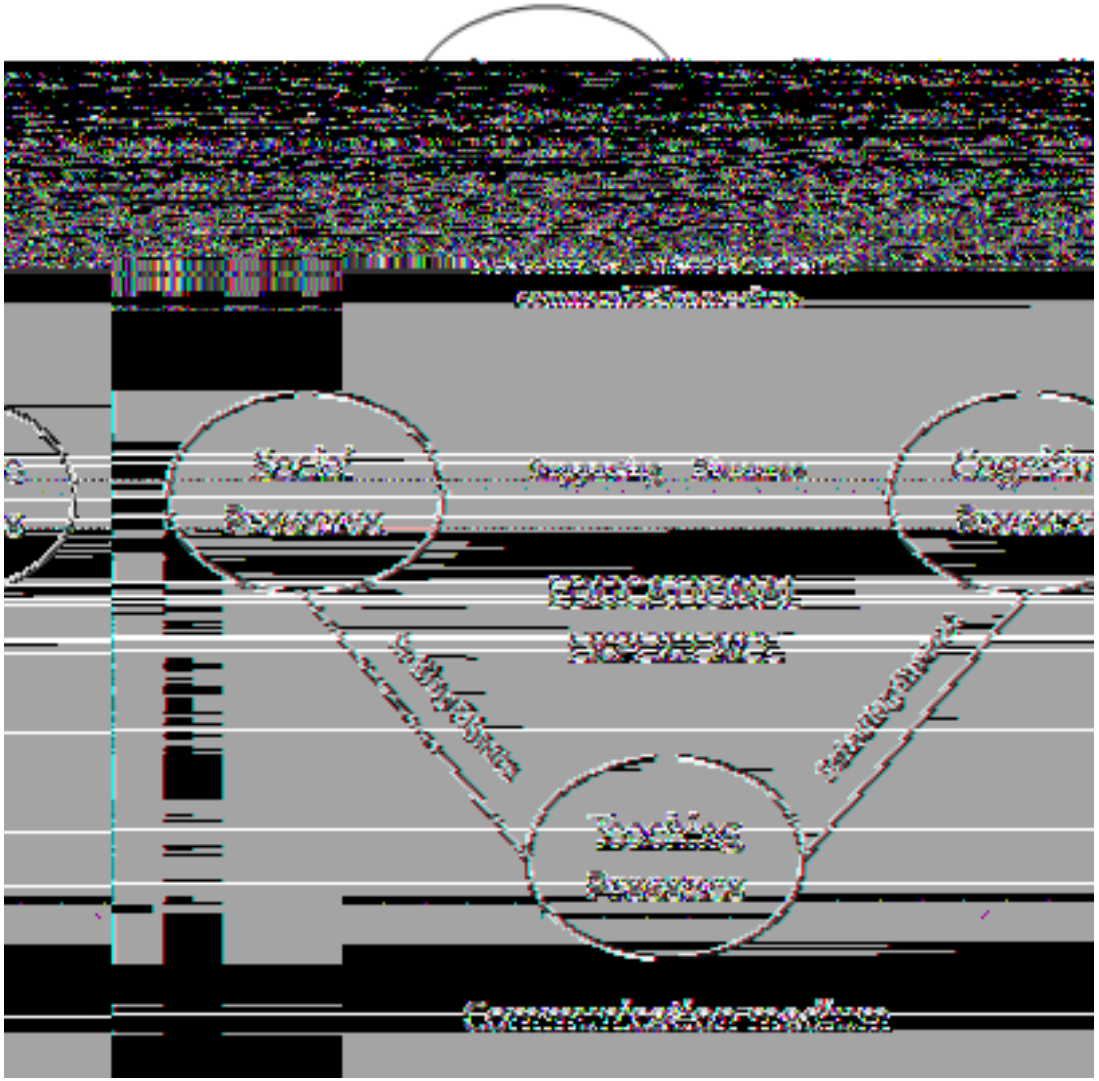
- Engagement in online collaboration with social media tools. The results agree with Stacey (1999) that Vygotsky's theory can apply to online communication as students learnt from more knowledgeable others through online collaboration in the blended learning course.
- The autonomy of students in designing learning, consolidating ideas and initiating discourse with intrinsic motivation but without the presence of teacher was found not reflected in the CoI framework.

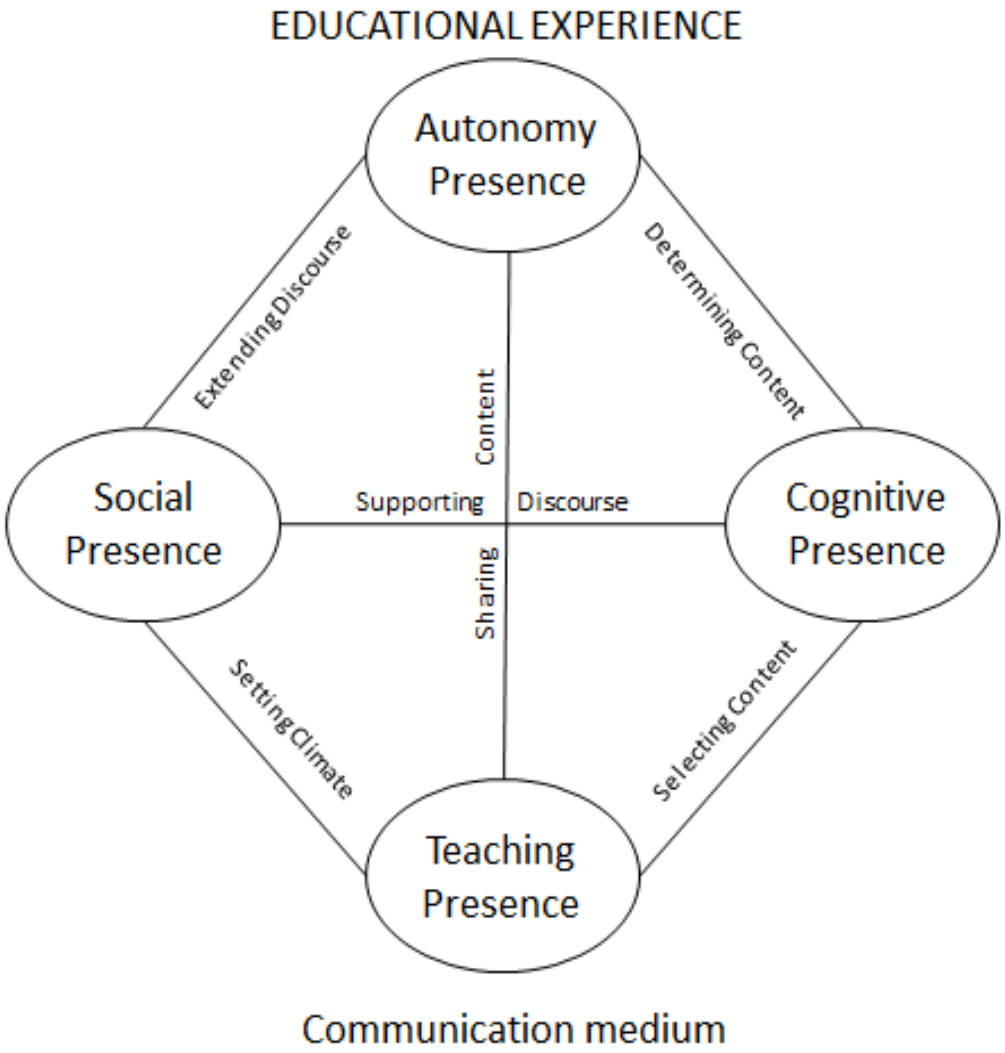
Autonomy Presence

Elements	Categories	Indicators	Evidence	Example (Quotes from Students' Individual Interview)
Autonomy Presence	Intrinsic Motivation	Intrinsic Drive	Students searched for new contents related to the course or participated in learning activities which were not instructed by teachers.	"I found online references that were more suitable to my learning as the level of difficulty of the content would suit me most."
	Interpretation	Formulating Ideas	Student experienced and found useful learning resources and generated some thoughts.	"Some of them were obtained from ACCA website." "We found a question which was worth doing or for discussion."
	Inspiring Discourse	Sharing Ideas	Students shared the useful learning resources to others for group learning.	"We posted it on Facebook and encouraged others to do it. We also solved the problem together." "Sometimes, my classmates would ask for my help in searching for some information online."

Discussion

- During the construction of the CoI in early 2000s, online communication tools were less convenient to use
- Therefore, autonomous learning was not linked to CoI
- Autonomous learning is now linked to the learning community with the convenient and user-friendly online communication tools (social media)
- The CoI framework should modify to reflect the inquiry learning related to learning autonomy of individuals.
- An extended model with new elements relate to learning autonomy should be constructed.




EDUCATIONAL EXPERIENCE
Autonomy Presence
Extending Discourse
Determining Content
Content
Social Presence
Supporting
Discourse
Cognitive Presence
Sharing
Setting Climate
Selecting Content
Teaching Presence
Communication medium

Conclusion

- Students engaged in prescribed blended learning
- Students also actively engaged in non-prescribed blended learning
- Autonomous learning and its link to inquiry learning using social media tools
- An extended CoI model with autonomy presence is proposed
- Limitation: generalization problem
- Further studies for having number of particularization for generalization

Thank you!

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