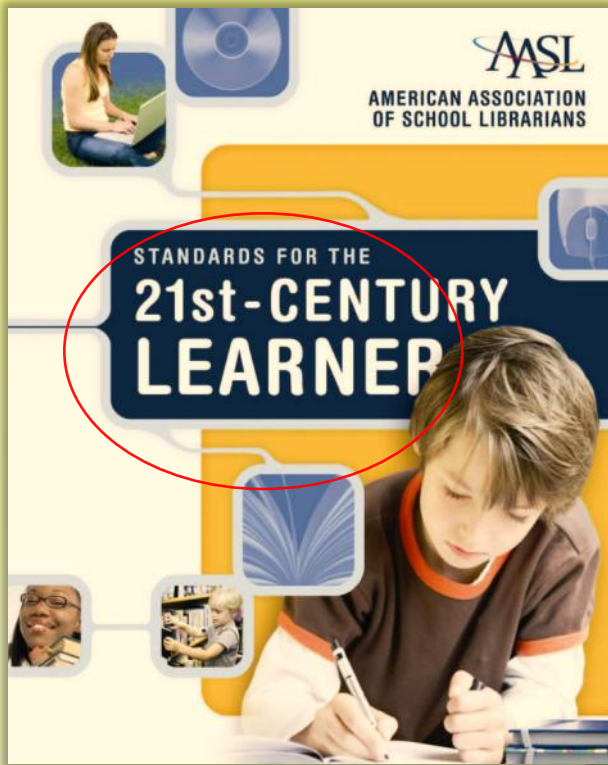


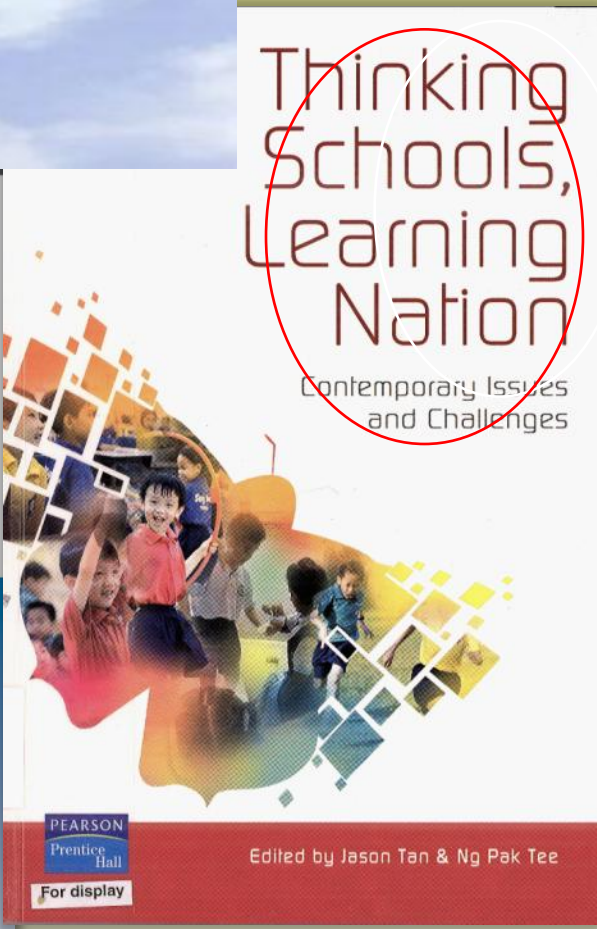
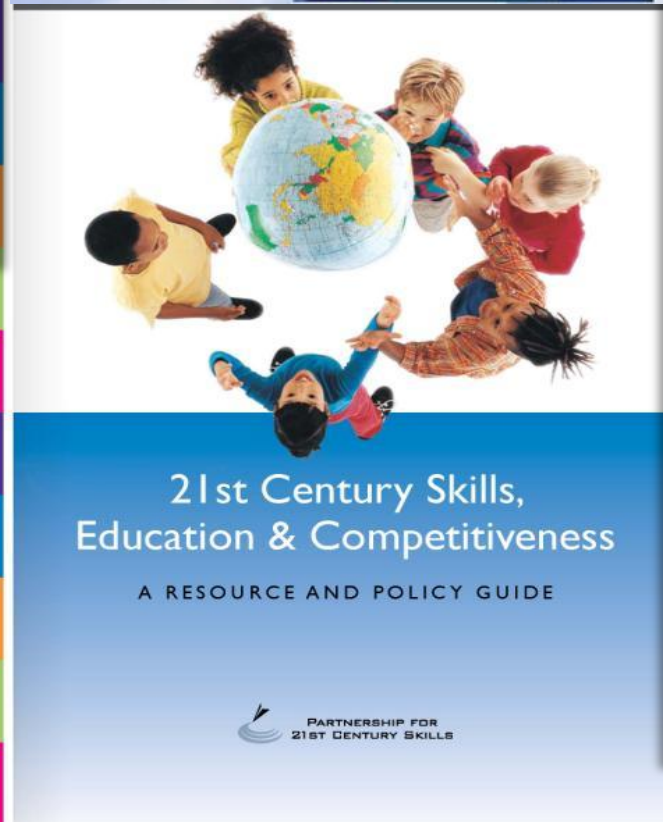
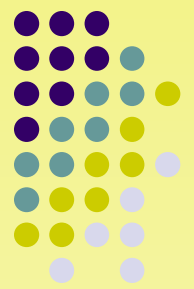
Towards a Knowledge Building Teacher Community

Dr Carol K.K. Chan

The University of Hong Kong



Learning to Learn





Transmission
Chalk & Talk



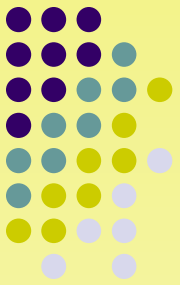
collaborative
culture



BUT HOW?



Create
Innovate



KBTN: A Different Approach

How do I help my students to discuss? to collaborate? To think better?

How do I help my students to build knowledge?

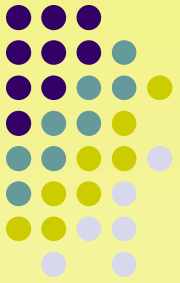
How do I cope with these things changing all the time?

Beyond 'know-how'....

Be a knowledge builder

Be a member of a kb community

What is Knowledge Building? 知識建構



Members working together to contribute and to add value to the community (Scardamalia & Bereiter, 2006)

1) Epistemic Agency (active)

創建新知, 解決問題

2) Improvable Ideas (deepen)

深化討論

3) Community Knowledge 群雄獻技,

互補不足, 共享成果

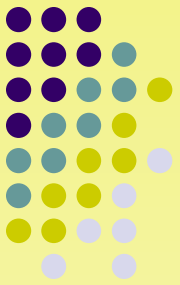


For my students?

**For Teachers
too?**

Not You but We

KBTN Approach



Can you teach others how to cook? Maybe ..
but

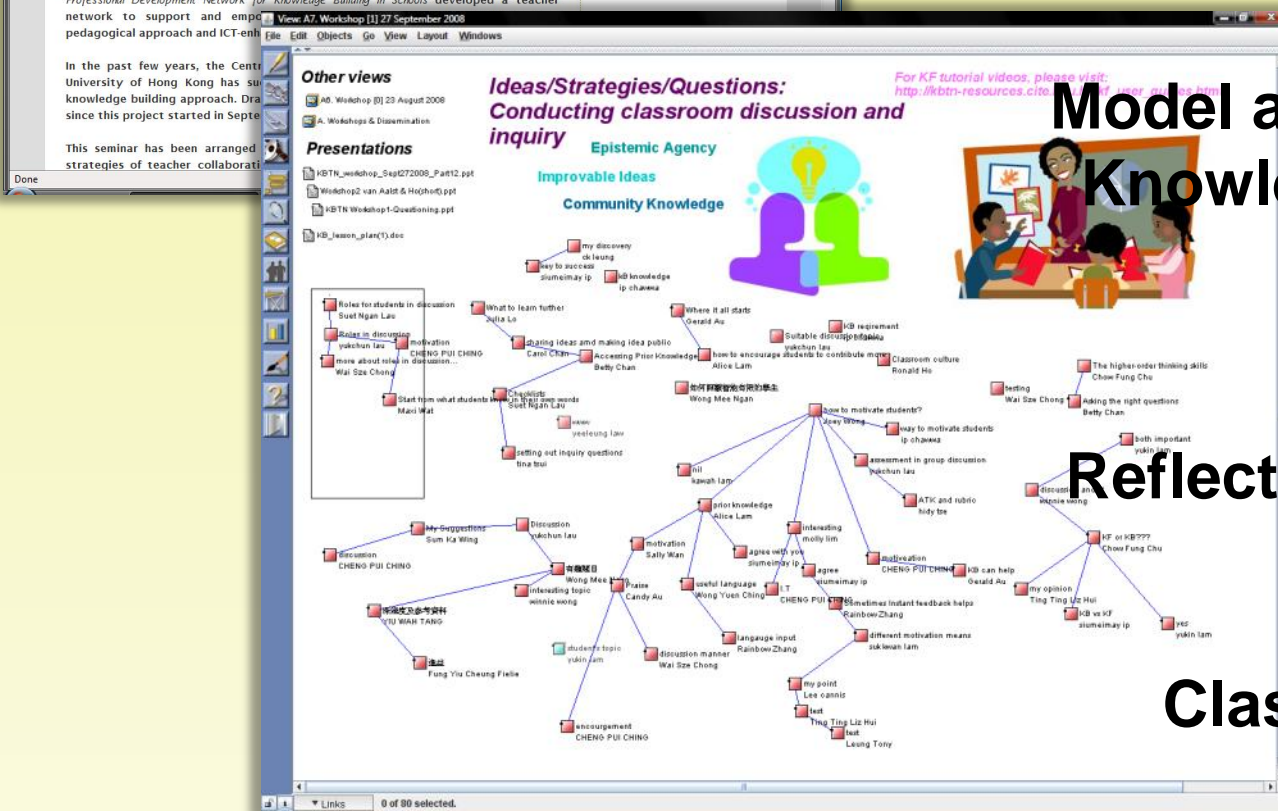
Teachers need to experience the ‘innovation’ if they
want to practice the innovation...

Watch out: Not just the content...but the approach
(e.g., RT, grouping, ask questions, summarize,
paper on board, select key questions, working on
KF)

Not just procedures.. BUT



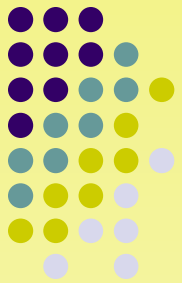
Working Together as a Community



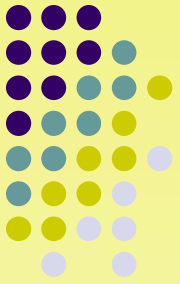
Model and Experience Knowledge Building

Reflection for principles

Classroom practice



KLA Meeting



**Peer coaching
School visit**



Workshops



**Expert sharing..
dissemination**



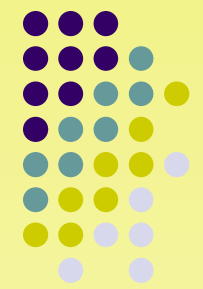
Design meetings



Teachers empowering teachers

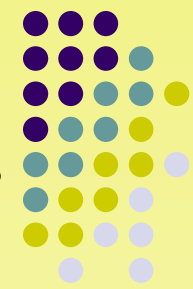


Students as teachers



Knowledge Building in Action





View: A7. Workshop [1] 27 September 2008

File Edit Objects Go View Layout Windows

Other views

- A0. Workshop [0] 23 August 2008
- A. Workshops & Dissemination

Presentations

- HBTK_workshop_sep272008_Part12.ppt
- Workshop2 van Aalst & Hooghiemstra.ppt
- HBTK Workshop1-Questioning.ppt
- KB_lesson_plan(').doc

Ideas/Strategies/Questions: Conducting classroom discussion and inquiry

Epistemic Agency

Improvable Ideas

Community Knowledge

For KF tutorial videos, please visit: http://kbtn-resources.cite.hku.hk/kf_user_guides.html

Knowledge Forum for Resources

Knowledge Forum for collective advances

View: A6. Workshop [0] 23 August 2008

File Edit Objects Go View Layout Windows

Powerpoint Presentation

- HBTK_workshop(Aug232008).ppt

Other views

- A. Workshops & Dissemination
- A6.1 Who's Who?
- A7. Workshop [1] 27 September 2008

What is Knowledge Building?

Teacher's Role in Doing Knowledge Building

To provide A active learning environment

- Roles of teacher
- Active learning environment
- any methods?
- actively learning
- Difference between junior and senior forms

To enhance Self-learning ability

- Teacher's role
- what are the ability in detail?
- computer skill
- Students ask their own questions
- Initiation of discussion questions

Motivating students to engage in know

Encouragement and reward

- Based on encouragement
- encouragement
- rewarding
- e.g. of encouragement

Flexibility of presentation mode

- Using games
- 科技精英(美國華裔) YIU WAH TANG
- 傑出的學生 Choi Wai Kwong
- 科學的聲之聲 Yuk Chun Sin

Using knowledge building in your subject

Strategies for using KB in English

- How to implement KB in English?
- Good English standard to 全英班 ip chowais
- practice and reflection
- Nice starting to build on each other

History (Senior secondary)

- KB in senior form History

Classroom Strategies

Setting good questions

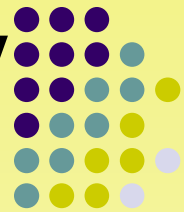
- What constitute a good question
- A good question may

Statistics

- ATK_support
- ATK_read
- ATK_sna-buildon
- ATK_sna-read
- ATK_Contribution
- ATK_buidon



What new network teachers created collectively



View: A6. Workshop [0] 23 August 2008

File Edit Objects Go View Layout Windows

What is Knowledge Building?

- what is kb molly lim
- About KB Chow Fung Chu
- teaching and learning method Jason Law
- Reply to what KB is Chow Fung Chu
- Actively construct knowledge Crystal Chiu

Statistics

- ATK_support
- ATK_read
- ATK: Overview, Mon Sep 1 15:22:44 2008 Crystal Chiu
- ATK_sna-buildon
- ATK_sna_read
- ATK: KBMeasures, Mon Sep 1 15:23:07 2008 Crystal Chiu
- ATK_Contribution
- ATK_buidon

Teacher's Role in Doing Knowledge Building

Provide Active learning environment

- Roles of teacher winnie wong
 - teachers' role Lee cannis
- Active learning environment Leung Yan Ming
 - Student Accountability Betty Chan
 - a caring learning atmosphere siumeimay ip
 - Idea improvement Teresa Ho
 - actively learning student 2
 - Difference between junior and senior forms yukchun lau

To enhance Self-learning ability

- Teacher's role chun yip lo
 - what are the ability in detail? student 2
 - IT support hiuhung tan
 - computer skill kitling kwan
 - school admin. support kitling kwan
 - good idea suk kwan lam
 - Students ask their own questions Crystal Chiu
 - 電腦入門, 已經可以? Yuk Chun Sin
 - giving them some choices instead chun yip lo
 - Initiation of discussion questions Rainbow Zhang

Flexibility of presentation mode

- 引導學習動機(激發的學生) Choi Wai Kwong
 - typing games yukin lam
 - 資料搜集及圖畫表達 YIU WAH TANG
 - 激發的學生 Choi Wai Kwong
 - 找尋欣賞之處 Yuk Chun Sin

Encouragement and reward

- Base on encouragement yukchun lau
 - encouragment Wai Sze Chong
 - rewarding Sam LI
 - 正面肯定 tou man ling
 - e.g. of encouragement yukchun lau
 - 個別差異的問題 Rita Shek
 - bonus molly lim
 - 001 Sam LI
 - 002 Sam LI
 - how to motivate students Lee cannis
 - give feedback Wing Chi Chan

Knowledge building in your subject

Strategies for using KB in English

- How to implement KB in English? siumeimay ip
 - good English standard is a must ip chawwa
 - practice and reflection Sally Wan
 - My feeling! Sze Man Pang
 - Tolerance of language mistakes Rainbow Zhang
 - Making changes Sally Wan
 - Change in teachers' beliefs Sally Wan
 - don't worry suk kwan lam

History (Senior secondary)

- KB in senior form History yukchun lau
- positive feeling siumeimay ip

Motivating students to engage in knowledge

Classroom Strategies

- Setting good questions Kit Ling Kam
 - What constitute a good question wilson lam
 - A good question may be Rainbow Zhang
 - ask wilson lam
 - study s cheung
 - look s cheung
 - read s cheung
- 主題探究的教學設計 Yuk Chun Sin

Curriculum Design for Knowledge Building

0 of 210 selected.

Who started the problem?

Who wrote? What are the themes?



Task Design & Students' Interest

課業設計及學生的興趣

Discussion Skills & Culture

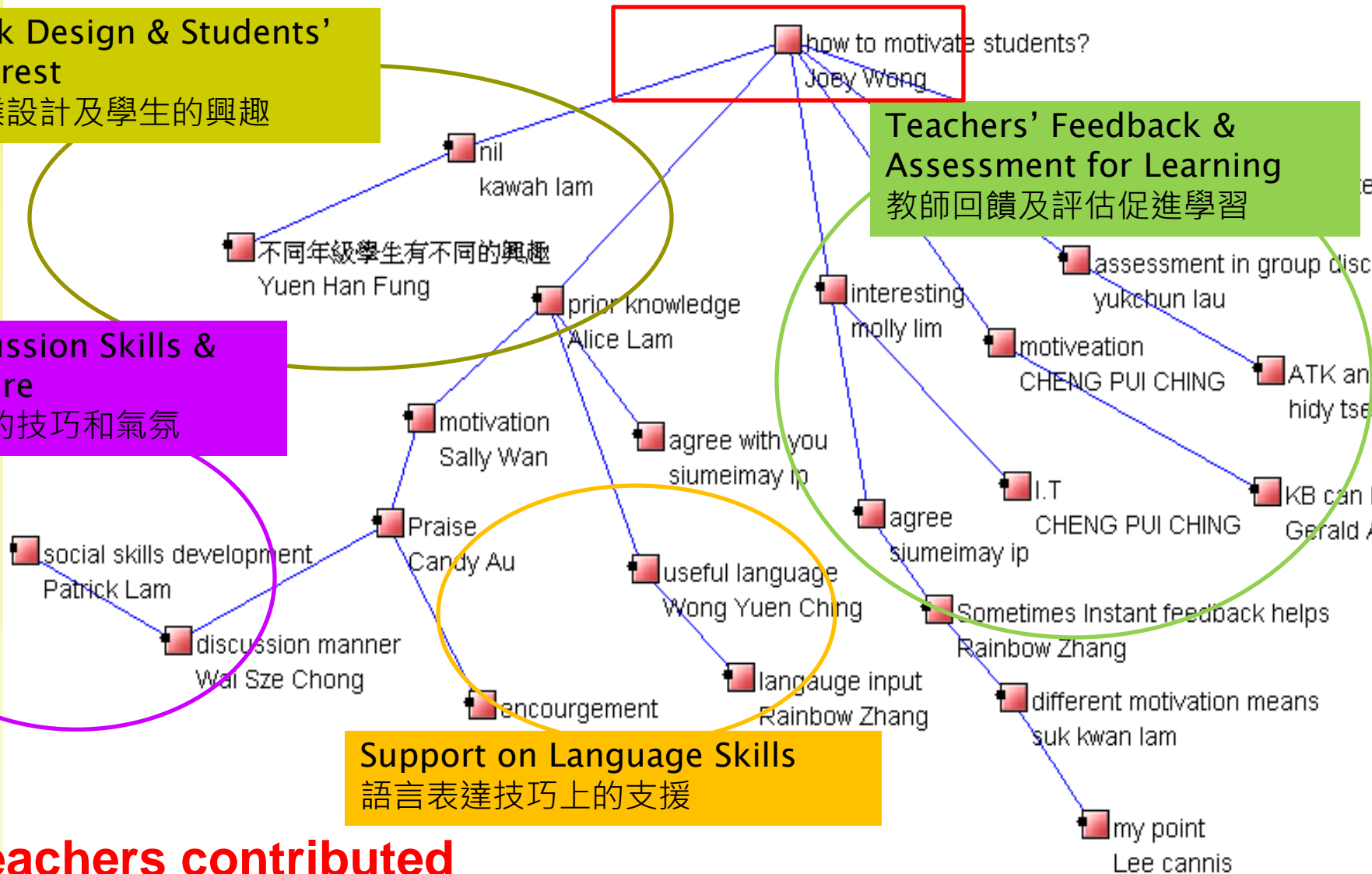
討論的技巧和氣氛

Support on Language Skills

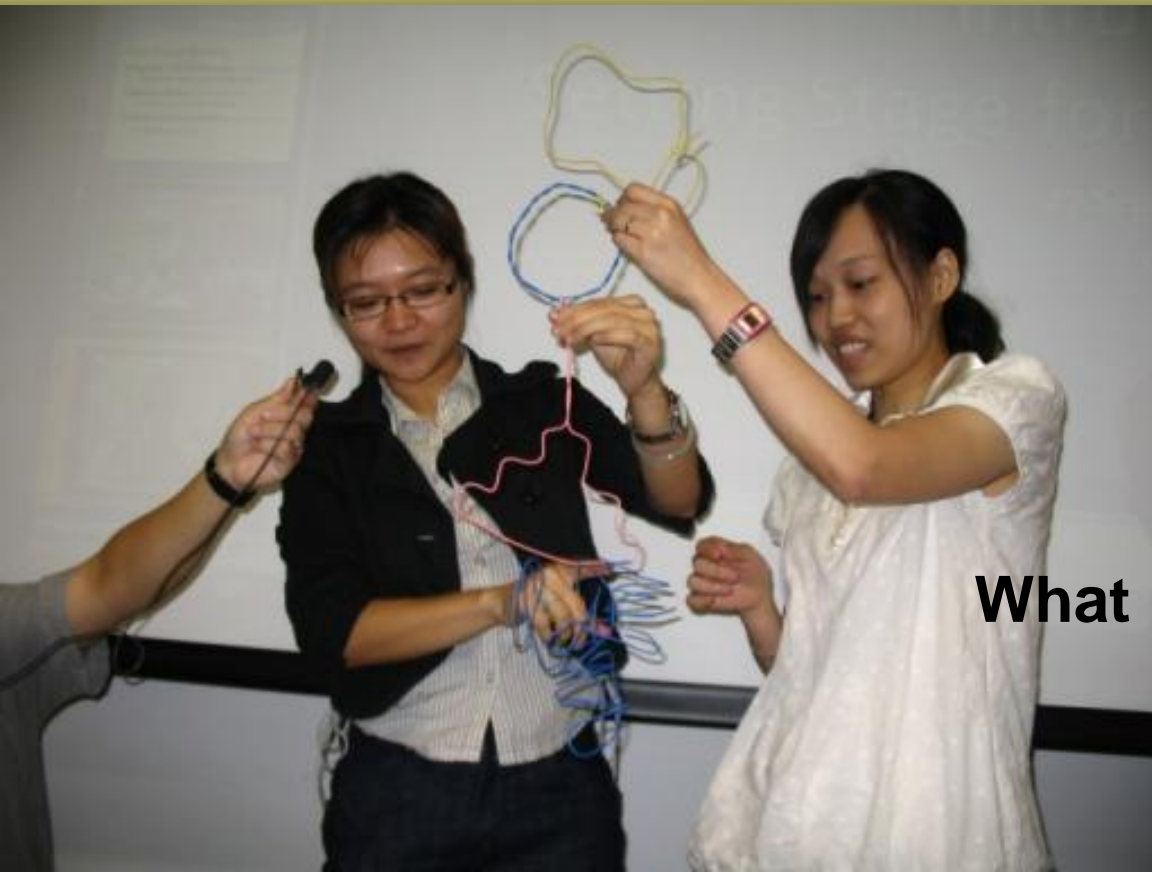
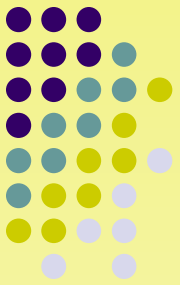
語言表達技巧上的支援

Teachers' Feedback & Assessment for Learning

教師回饋及評估促進學習



19 teachers contributed

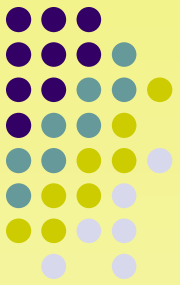


What is knowledge?

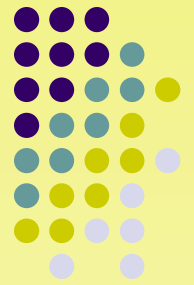
Building knowledge Together...

We as a community

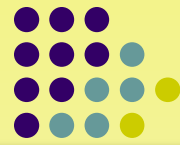
Contributing and Advancing Together



- Let us Hear More from our Valuable Community Members



Some Participating Schools



KBTN-Schools: KBTN- Knowledge Building in Action: Participant Schools [edit](#)

KB Participating Secondary Schools 06-07 [edit](#)

- [\(CCCKTSS\) The Church of Christ in China Kei To Secondary School - Home](#)
- [\(CCCMKC\) The Church of Christ in China Ming Kei College - Home](#)
- [\(CC\) Cognitio College \(Kowloon\) - Home](#)
- [\(CCYMSS\) Caritas Chong Yuet Ming Secondary School - Home](#)
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ools: (RC) Raimondi College - Home [edit](#)

[Link to Raimondi College Databases](#)
[Link to Raimondi College Databases](#)



中華基督教會基道中學
 The Church Of Christ In China
 Kei To Secondary School

Student Performance [edit](#) [edit](#)



PUI KIU COLLEGE
培僑書院
 NURTURE BRILLIANT GENERATIONS
 中興舊學 培養出類拔萃新世代



KBTN-Schools2: (SSYHNC) SSY Ho Ngai College - Home [edit](#)

Welcome to SSY Ho Ngai College Knowledge Forum Homepage [edit](#)

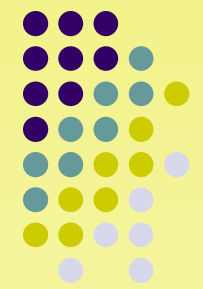


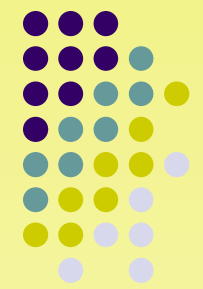
Shatin Tsung Tsin School

[@TTT: Learning English with Fun](#)
[@TTT: English Learning with Fun](#)
[@TTT: My Learning Time](#)
[@TTT: Little Professor Forum](#)
[Welcome](#)

Apr

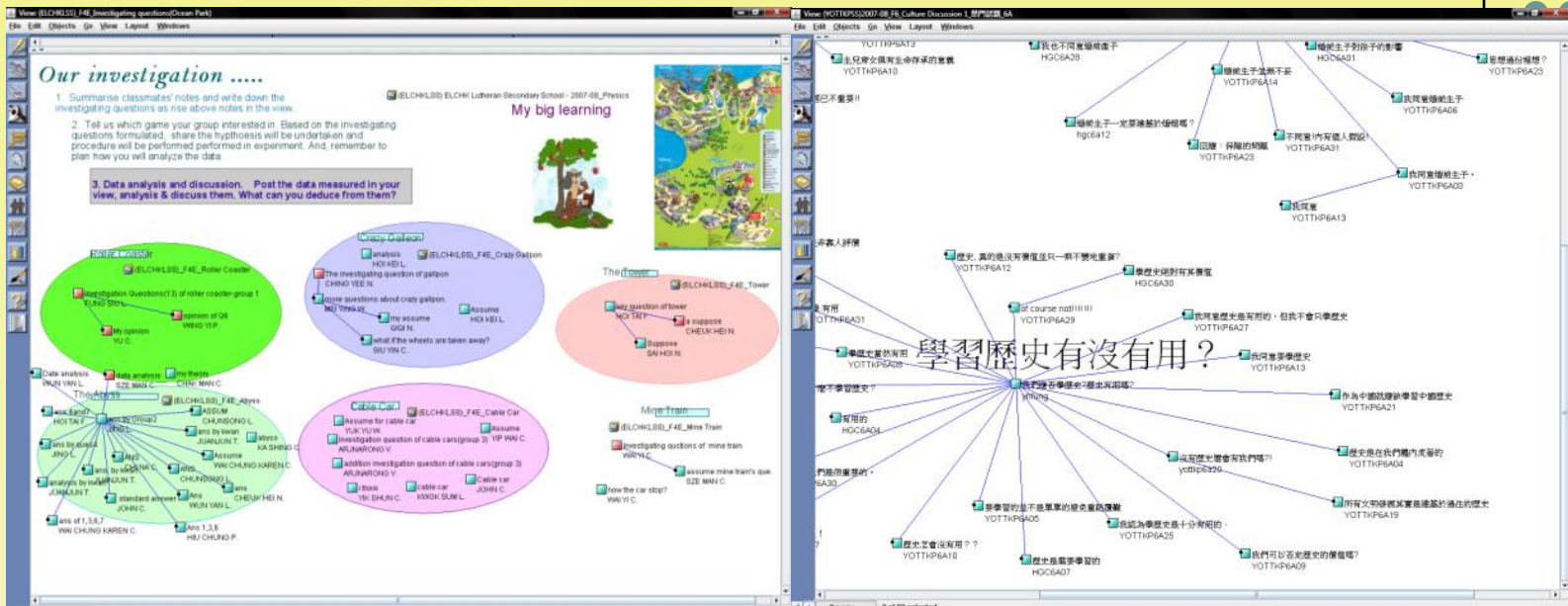
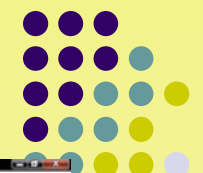






Diverse expertise in Knowledge-building community





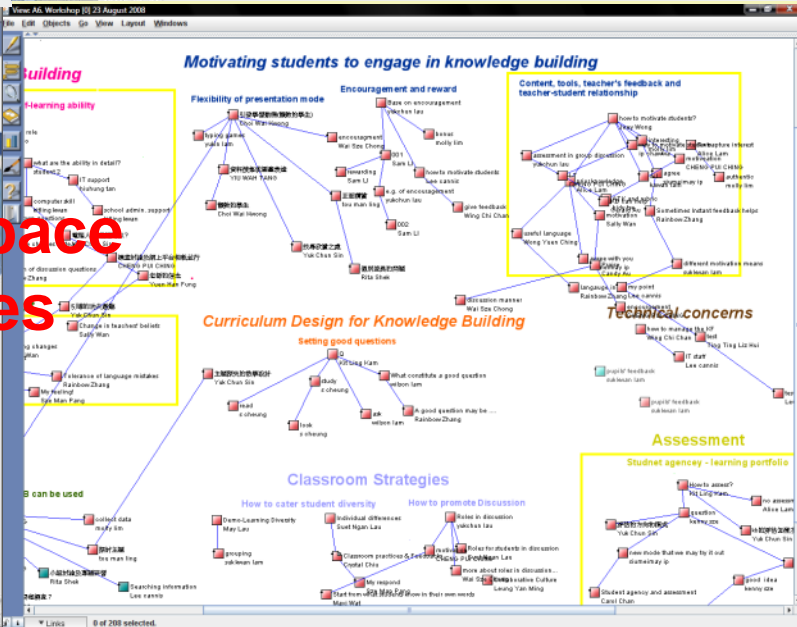
KBTN-Language-0708: (YOTTKPSS)2007-08_F1_1AB_Discussion 頭髮

View Link
 (YOTTKPSS)2007-08_F1_Home
 (YOTTKPSS)2007-08_F1_1AB_Home

Do Action... Show As discussion

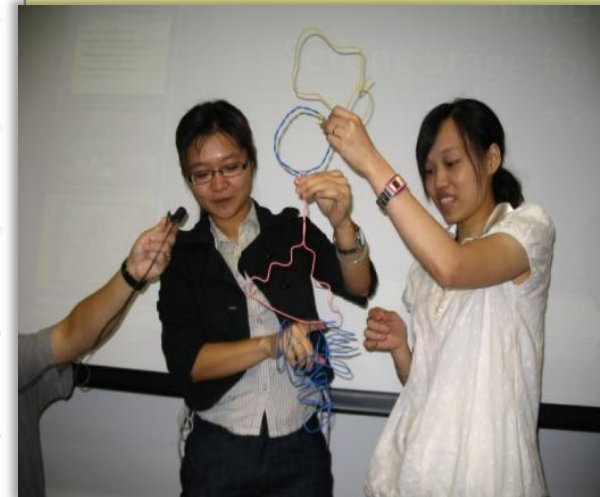
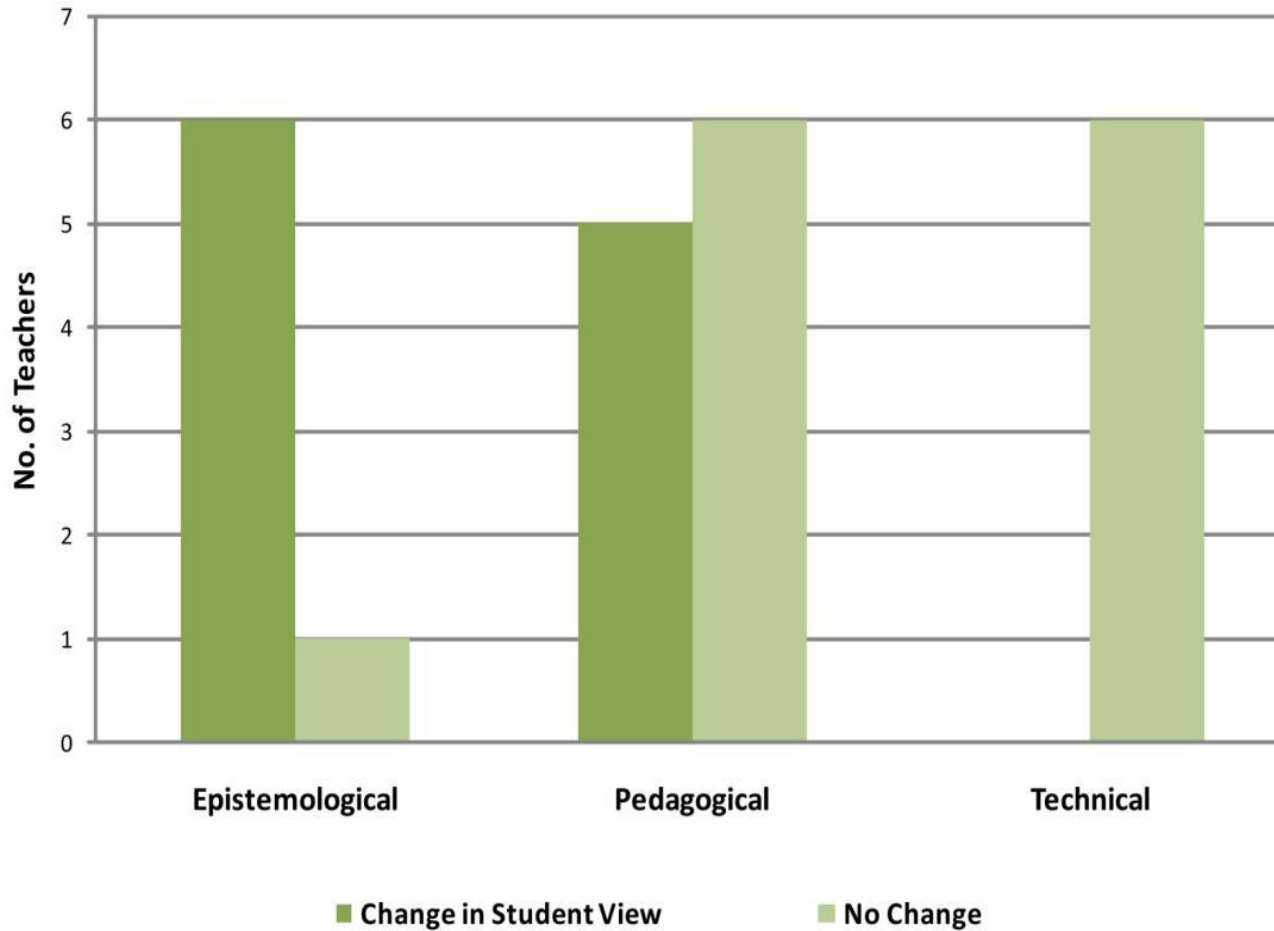
你認為得到永生是一件好事嗎? edit by wechan [2008, Mar 06]
 我認為得到永生不是一件好事 edit by wechan [2008, Mar 07]
 其實我們太過草率吧?? edit by YOTTKPIB19 [2008, Mar 09]
 我同意1b12 edit by YOTTKPIB12 [2008, Mar 11]
 我沒有能... edit by YOTTKPIB12 [2008, Mar 23]
 我同意1a12的說法 edit by YOTTKPIA12 [2008, Mar 21]
 我有些不同意1b2的一些說法 edit by YOTTKPIA16 [2008, Mar 22]
 我同意1a12的說法 edit by YOTTKPIA18 [2008, Mar 29]
 反對1A18的說法 edit by YOTTKPIB16 [2008, Mar 29]
 同意1B15 edit by YOTTKPIB24 [2008, Mar 30]
 我同意1b24 edit by YOTTKPIB17 [2008, Mar 30]
 我同意1b17 edit by YOTTKPIA23 [2008, Mar 31]
 我認為永生是一件不好的事 edit by YOTTKPIB12 [2008, Mar 07]
 我認為永生是一件壞事 edit by YOTTKPIB13 [2008, Mar 07]
 我亦認同你 edit by YOTTKPIB20 [2008, Mar 07]
 我也認同!!!! edit by YOTTKPIA12 [2008, Mar 17]
 我同意1A12的說法 edit by YOTTKPIA17 [2008, Mar 26]
 我認為得到永生不是一件好事 edit by YOTTKPIB20 [2008, Mar 07]
 我認為你太過於偏激 edit by YOTTKPIB19 [2008, Mar 09]
 我同意1B12 edit by YOTTKPIB16 [2008, Mar 29]
 你反對1B12 edit by YOTTKPIB16 [2008, Mar 29]
 我不同意 edit by YOTTKPIB17 [2008, Mar 17]
 我認為永生不是一件好事! edit by YOTTKPIA13 [2008, Mar 24]
 我同意1a13的講法 edit by YOTTKPIA23 [2008, Apr 02]
 我認為得到永生是一件好事 edit by YOTTKPIA19 [2008, Mar 08]
 我認為得到永生不是一件好事 edit by YOTTKPIA17 [2008, Mar 10]
 我認同你的說法 edit by YOTTKPIA15 [2008, Mar 15]
 我認為永生不是一件好事 edit by YOTTKPIA15 [2008, Mar 15]

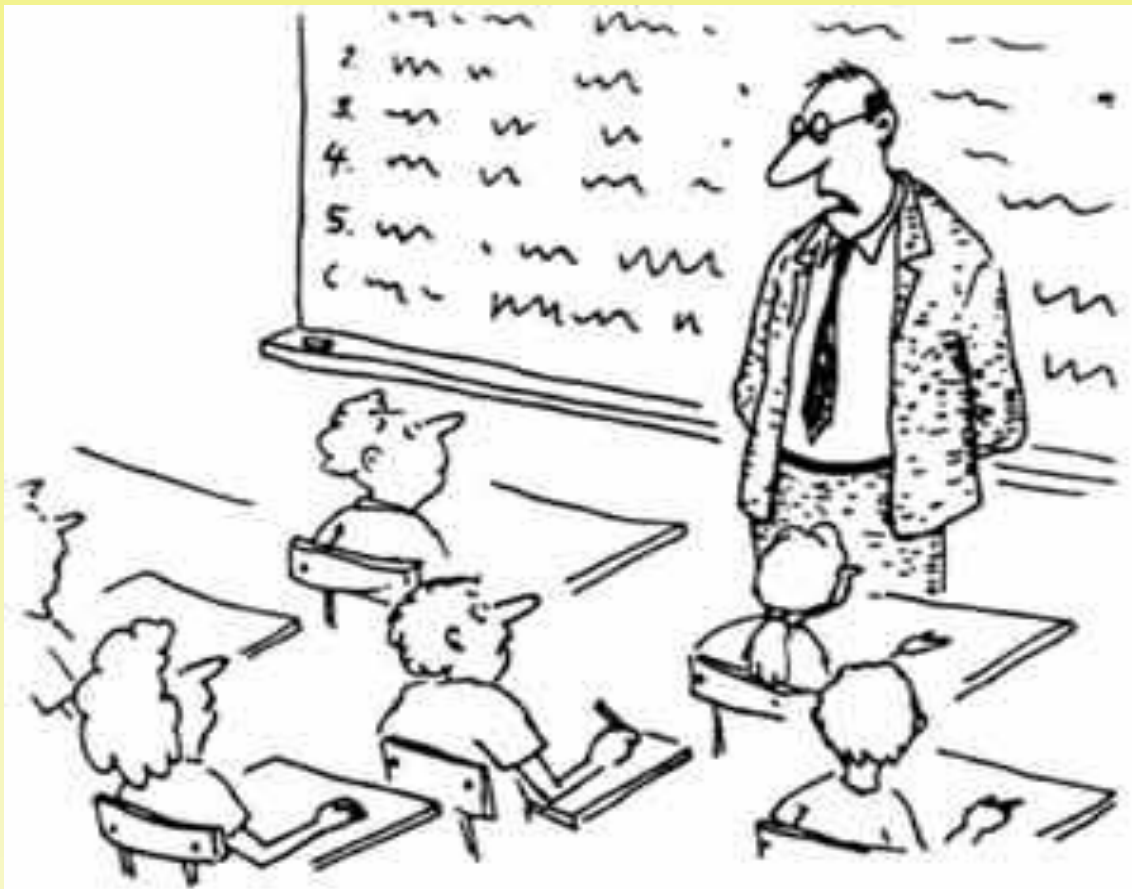
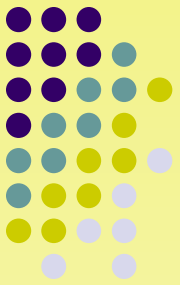
Reflection & design space on different examples





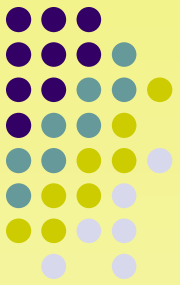
Teacher Epistemology and Change in Student Views of Collaboration





“I expect you all to be independent, innovative, critical thinkers who will do exactly as I say!”

I expect you all to be independent, Innovative, critical thinkers who will do exactly as I say!



Knowledge Forum

1. Thinking prompts, 2. Reference, 3. Rise-Above (Improvable idea)

The screenshot shows a Knowledge Forum window titled "Rainbows - Thando, Alyssa, T.W., Hanna, Richard Messina, Matthew M.". On the left is a "Theory Building" sidebar with categories like "My theory", "I need to understand", "New information", "This theory cannot explain", "A better theory", "Putting our knowledge together", "Never Information", "My newer theory", "Our theory", and "My experiment".

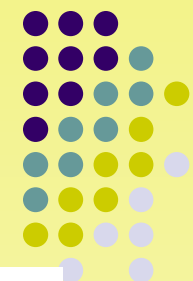
The main content area contains a discussion thread. A red arrow labeled "Rise-Above" points to a post by Richard Messina asking "Why a rainbow is created? Are the colours always the same?". Another red arrow labeled "Reference" points to a post by T.W. explaining that rainbows are created by light passing through water droplets, acting like a prism. A third red arrow labeled "Scaffolds" points to the "Theory Building" sidebar.

Below the main text is a "Connections for 'Rainbows'" window listing references:

- 1 Richard Messina. (2001, February 16). rainbows [Online]. Available: Knowledge Forum™ Database: "SI-Rose-ICS Grade 4"
- 2 Richard Messina. (2001, February 16). Are all rainbows semi-circular? [Online]. Available: Knowledge Forum™ Database: "SI-Rose-ICS Grade 4"
- 3 T.W.. (2001, February 16). Light passing through water [Online]. Available: Knowledge Forum™ Database: "SI-Rose-ICS Grade 4"
- 4 Thando. (2001, February 16). rainbows*3 [Online]. Available: Knowledge Forum™ Database: "SI-Rose-ICS Grade 4"
- 5 Jacob. (2001, February 16). When the rain falls down... [Online]. Available: Knowledge Forum™ Database: "SI-Rose-ICS Grade 4" [No date].

At the bottom, there are fields for "Keywords" and "Add" buttons for "Scaffolds", "Build On", and "Connections".

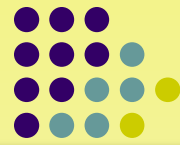
Different representations of knowledge (Scardamalia & Bereiter, 2006)



The image displays four screenshots of a software interface, each showing a different way of representing knowledge about dinosaurs. The interface includes a menu bar with options like File, Edit, Objects, Text, Windows, Teacher, KBA, and Help.

- Top Left:** A hierarchical tree diagram titled "Dinosaurs". It shows various dinosaur species and groups like "T-Rex", "Velociraptor", "Triceratops", "Stegosaurus", "Tyrannosaurus Rex", "Sauropods", and "Dinosaur Detective".
- Top Right:** A window titled "4 Species of Dinosaurs" showing "Coelophosids" and "Ceratopsids". It includes illustrations of a dinosaur and a map of dinosaur distribution. A red word "Views" is overlaid on this screenshot.
- Bottom Left:** A window titled "Geological Time" showing a vertical timeline of geological periods from the Permian to the Devonian. It includes a table of geological time scales and a diagram of dinosaur evolution. A red word "Different Ideas" is overlaid on this screenshot.
- Bottom Right:** A window titled "Dinosaur Food Chain View" showing a food chain diagram. It includes "Plant Eaters" (like "Ferns Flowers Seeds", "Grass", "Plant in Forest and marsh") and "Meat Eaters" (like "UTARAPTOR", "Coelophosids", "T-Rex", "Velociraptor"). A red word "Different Ideas" is overlaid on this screenshot.

Some Participating Schools



KBTN-Schools: KBTN- Knowledge Building in Action: Participant Schools [edit](#)

KB Participating Secondary Schools 06-07 [edit](#)

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ools: (RC) Raimondi College - Home [edit](#)

[Link to Raimondi College Databases](#)
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中華基督教會基道中學
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Student Performance [edit](#) [edit](#)



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 中興舊學 培養出類拔萃新世代

KBTN-Schools2: (SSYHNC) SSY Ho Ngai College - Home [edit](#)

Welcome to SSY Ho Ngai College Knowledge Forum Homepage [edit](#)



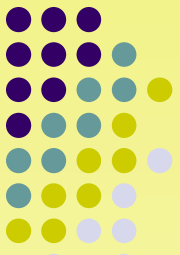
Shatin Tsung Tsin School

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[Welcome](#)



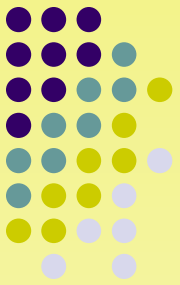
Apr

Useful readings



Dynamics ↕	Specific questions ↕	Analyses ↕	Expected performances ↕
Idea improvement ↕	How do questions and ideas evolve and refine over time? ↕	Trace the change of student's ideas. ↕	Students shift toward a more scientific view. ↕
Real ideas, authentic problems ↕	How are real-world empirical data used? ↕	Use of empirical data as evidence on quality of ideas. ↕	Students bring valuable data into the discourse and make sense of them. ↕
Community knowledge ↕	How do individual contributions spread and how are they used? ↕	Analyze contributions to the work of others and related knowledge gains. ↕	Students interact in a way that supports conceptual advancement. ↕
Constructive use of authoritative sources ↕	What are the patterns of their use? ↕	Use of expert resources. ↕	Students integrate expert and go beyond given information to generate and improve their ideas. ↕
↕ ↕ Overall ↕	Overall measure of knowledge gains ↕	Pre- and post-test comparisons; analyses of student portfolios. Correlations. ↕	Improvement of performance pre- to post-test; Students' portfolio notes reflect high levels of scientificness and epistemic complexity. Indicators of the dynamics correlate with quality of ideas in portfolio notes. ↕

Changing Demands



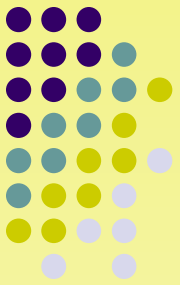
21st century learning

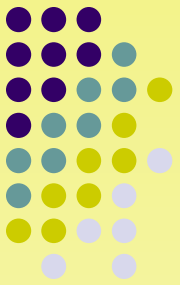
.....3+3+4 Reform Goals

- Literacy
- Critical Thinking, Higher-Order, Inquiry
- Project Learning
- Information Technology
- Creativity - Knowledge Creation for 21st Century



Useful readings





- Practice what you Preach!

Welcome to Knowledge Building TPD Network Home [edit](#)

Welcome to the KB Teacher Professional Development Network

This is where both experienced and novice KB teachers can learn about how to conduct knowledge building activities in their teaching by using the Knowledge Forum (KF). This is also a place for all teachers to share their views and experiences of using KF, and to look at the exemplars of KB work done by other teachers. Come here often to witness the growth of the network community of which you are a valuable contributor.

- [1. Knowledge Building Pedagogies and Databases](#)
- [2. Knowledge Building Theoretical Issues](#)
- [3. Knowledge Building Resources](#)
- [4. Knowledge Building Teachers Network](#)
- [5. Knowledge Building in Action](#)
- [6. Knowledge Building Technology](#)
- [7. Seconded Teacher Community](#)