

**LA CREACIÓN DE UNA SABIA  
COMUNIDAD EN LÍNEA Y EL  
ASSESSMENT DEL PROCESO DE  
CONSTRUCCIÓN SOCIAL DEL  
CONOCIMIENTO.**

**CREATING A WISE COMMUNITY  
ONLINE AND ASSESSING THE  
PROCESS OF SOCIAL CONSTRUCTION  
OF KNOWLEDGE**

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**QUESTIONS**

1. What skills are needed in a knowledge-based society?
2. Can these skills be developed in online learning communities?
3. What are the main components of our WisCom (Wisdom Communities) learning design model that was developed to address ill structured, authentic learning outcomes?
4. What is the theoretical basis for WisCom?
5. What does an online course built with WisCom, look like?
6. How do we assess social construction of knowledge that occurs in a learning community built with WisCom?

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**QUESTION 1:  
WHAT SKILLS ARE NEEDED IN A  
KNOWLEDGE-BASED SOCIETY?**

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**OUR STUDENTS LIVE  
IN A KNOWLEDGE-BASED SOCIETY**

- Data is a commodity, but not scarce.
  - Ubiquity has downgraded its value.
- Possessing knowledge is no longer enough...
  - ...to succeed in the marketplace
  - ...to understand the world

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The Old Skillset  
**Know.**

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The New Skillset  
**Filter. Think Critically. Prioritize.  
Connect. Negotiate. Integrate.  
Create**

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*Acquiring knowledge is no longer  
a sufficient learning outcome.*

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**IN THIS NEW SOCIETY, DATA MATTER.  
SO DO NETWORKS.**

- Connections help us make sense of data.
- Collaborations help us create meaning.
  - Groups
  - Partnerships
  - Cohorts
  - 15 peers in a classroom
  - 45,000 in a massive open online course (MOOC)

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**THE NEW ESSENTIAL SKILLS**

- **Negotiating meaning** within teams and groups
- Creating new, **context-sensitive** understandings
- Producing **novel solutions** to real-world problems

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**QUESTION 2:  
CAN THESE SKILLS BE  
DEVELOPED IN ONLINE  
LEARNING COMMUNITIES?**

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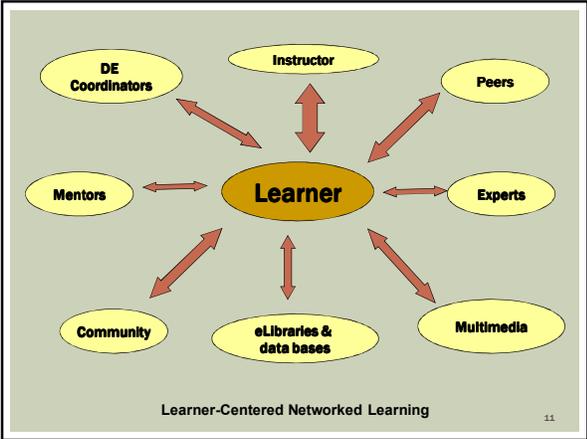
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LEARNING 1.0	2.0	LEARNING
Formal Structured		Informal Collaborative
Instructor led		Peer facilitated blended, blogs, wikis
Top down- experts		Bottom up-peer to peer-community identified experts
Management hierarchy		Mentoring, knowledge networks

Adapted from Lambert (2008)

Moved from Web 1.0 to Web 2.0, where social media tools foster interaction, collaboration, and contribution

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**QUESTION 3:**  
**WHAT ARE THE MAIN COMPONENTS OF OUR WISCOM (WISDOM COMMUNITIES) LEARNING DESIGN MODEL THAT WAS DEVELOPED TO ADDRESS ILL STRUCTURED, AUTHENTIC LEARNING OUTCOMES?**

Gunawardena, et al., 2006)

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**WISCOM**  
THE WISDOM COMMUNITY INSTRUCTIONAL DESIGN MODEL

- Supports the **formation of collaborative learning cohorts**
- Provides instructional designers and instructors with a **clear-cut but flexible set of considerations** to foster wise online learning communities.
- Prompts learners to **transform data into information, knowledge and, ultimately, wisdom.**
  - Happens through interactions with content, instructors, peers
  - Creates an environment conducive to transformational learning

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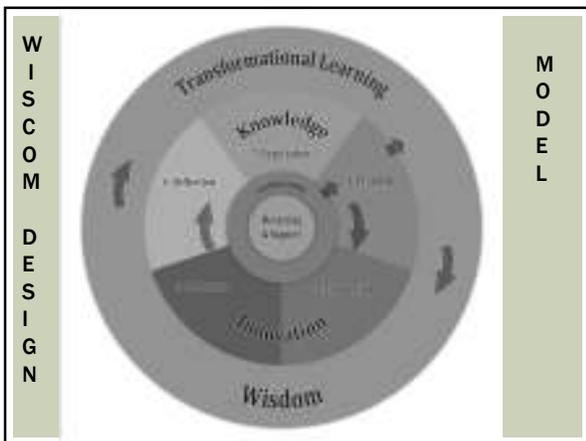
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**THE WISCOM MODEL**

A wisdom community with distributed intelligence, mentoring and other support, and knowledge innovation create an environment conducive to transformational learning

The WisCom cycle of inquiry – begins with the emergence of a question, case, problem or issue.

The **FOUR STEPS IN THE CYCLE**  
 Experience a trigger  
 Engage in exploration  
 Integrate findings  
 Reach a resolution

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**PROCESSES OF WISDOM  
(STERNBERG & JORDAN, 2005)**

- Wisdom manifests itself as a series of processes that are typically cyclical and can occur in a variety of orders
- These processes or “metacomponents” of thought, (Sternberg 1985) are:
  - (a) recognizing the existence of a problem
  - (b) defining the nature of the problem
  - (c) representing information about the problem
  - (d) formulating a strategy for solving the problem
  - (e) allocating resources to the solution of a problem
  - (f) evaluating feedback regarding that solution.
- In foolishness the problem solving process is defective. One misdefines the problem one faces.

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**WISCOM  
MODEL COMPONENTS**

- **A community based on distributed intelligence**
  - The community is key
  - Negotiate meaning
  - Collaborate on learning goals
  - The community is the central learning activity
  - Assessment rewards collaboration
- **Mentoring & learner support**
  - Mentoring responsibilities are distributed
  - Each group member is a potential mentor
  - Instructor mentoring involves scaffolding techniques
- **Knowledge innovation**
  - Creation (or discovery) of knowledge
  - Permanent storage (preservation)
  - Retrieval of archived knowledge
  - Enabling of retrieved knowledge

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*Learning is a process that happens both individually, via self-initiated exploration, and collectively, via sharing, questioning, and providing feedback.*

*The teacher (or facilitator) becomes both guide and moderator and, at times, co-learner.*

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Outcomes

**Specific, focused conclusions.**

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Process

**Reflection and dialogue.**

*within an atmosphere of mutual trust, respect, and commitment.*

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*We see wisdom as a synthesis of perspective, insight, flexibility, and humility (Gunawardena et al., 2004), and we stipulate that wisdom can be observed both in individuals and in group dynamics.*

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**QUESTION 4:  
WHAT'S THE THEORETICAL  
BASIS FOR WISCOM?**

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**THEORETICAL BASE: A RANGE OF  
INSTRUCTIONAL & LEARNING THEORIES**

- Social Constructivism
  - **knowledge is co-created by the members of a group by a process of negotiation of meaning within the group**
- Distributed Cognition
  - Knowledge is distributed in minds and tools used
- Situated Learning – authentic contexts
- Mentoring & Learning Support
- Knowledge Innovation and Management
- Transformational Learning – changes in perspectives

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**QUESTION 5:  
WHAT DOES A COURSE BUILT  
WITH WISCOM, LOOK LIKE?**

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**A COURSE DESIGNED WITH WISCOM TENDS TO...**

- Require ongoing commitment from instructors, students, and other participants.
- Focus on collaborative learning experiences.
- Downplay traditional learning and teaching roles.
- Encourage divergent thinking.

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**A COURSE DESIGNED WITH WISCOM TENDS TO...**

- Emphasize problem-based learning activities.
- Place equal weights on process and outcome.
- Strive to affect students' thinking and behavior beyond the class.

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### WISCOM IN PRACTICE

- WisCom allows for a range of instructional tactics in support of these components.
  - Discussion forums
  - Collaborative concept maps
  - One-on-one and group teleconferencing
  - Collaborative document editing
  - Group presentations

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### DESIGN TASKS & FACILITATOR ROLES

- **Building a Learning Community**
  - Creating the social environment & social presence
  - Facilitating interaction
- **Providing Learner support**
  - Mentoring, guiding, tutoring
- **Facilitating Knowledge Construction**
  - Helping to achieve group goals
  - Promoting learning
  - Weaving ideas, synthesizing, summarizing
  - Preserving Knowledge & managing information overload
  - Assessing Learning & providing feedback

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The screenshot shows a web-based interface with a dark header and a light background. On the left, there is a sidebar with a list of items. The main area displays a detailed view of a selected item, including a title, a description, and a list of related items or resources. The text is small and somewhat blurry, but the layout is typical of a learning management system or a collaborative workspace.

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### MENTORING & OTHER FORMS OF LEARNER SUPPORT

- Mentoring responsibilities are distributed
  - Each group member is a potential mentor
  - Guest experts can be mentors
  - Instructor mentoring involves scaffolding techniques
- Instructional support
  - Facilitating conversations
  - Providing feedback on work
- Learner support
  - Counseling
  - Advising

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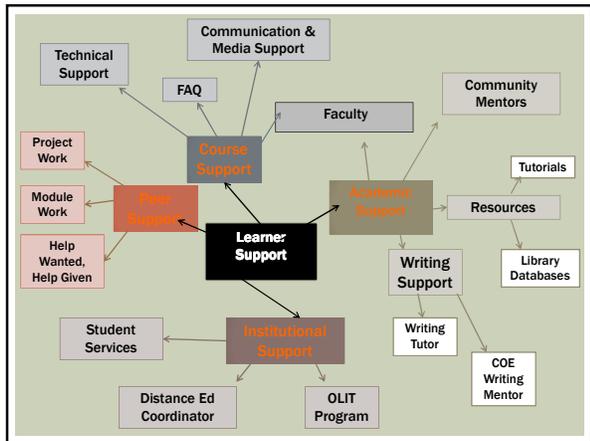
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### ASSESSING LEARNING & PROVIDING FEEDBACK

- Changing Culture of Assessment - learning improvement
- Focused on process of learning not only product - problem solving, collaborative, situated, distributed
- Assessing group projects - individual & group
- Assessing individual participation
- Self assessment
- Feedback focusing on strategies for improvement

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### SELF ASSESSMENT

- **Community Building**
  - I supported or encouraged others to express their views and experiences.
  - When disagreeing, I treated other's views respectfully, and stated the specific reasons for disagreeing.
  
- **Knowledge Building**
  - I introduced personal life or professional experience directly relevant to the discussion topic
  - I referred to the required reading/s (quoted or paraphrased accurately) in my posts.
  - I asked a question that lead the discussion into a new but related area.
  - I pointed out relationships between ideas advanced by different peers.

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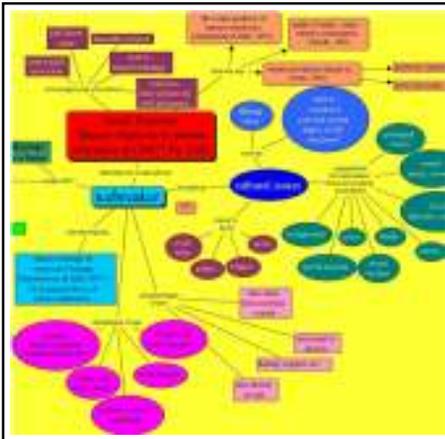
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**WISCOM IN ACTION**  
The results of a collaborative concept map.

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### TUTOR MENTOR DEVELOPMENT PROGRAM IN MOODLE IN SRI LANKA




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### THREE INQUIRY-BASED DESIGNS

- Each group worked on a different inquiry-based learning design:
  - Group 1 - **problem solving activity** to clean up garbage in the country's capital.
  - Group 2 - **role-play activity** to solve traffic congestion in the country's capital.
  - Group 3 - **case based reasoning activity** to find a solution for street children in the country's capital.

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### EXAMPLE: INTERACTIVE LEARNING FORUM



Discussion	Viewed by	Group	Response	Language
Street children in the city of Manila	10/14/13	01000	41	en, es, fr, it, pt, ru, zh
Sanitation in the capital of Manila	10/14/13	01000	37	en, es, fr, it, pt, ru, zh
Garbage in the capital of Manila	10/14/13	01000	41	en, es, fr, it, pt, ru, zh

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### WIKI SPACE FOR REPORT WRITING



**Wiki for Report writing for interactive learning forum**

**Topic:** Case based reasoning activity to solve traffic congestion in the capital of Manila

**Background:** Street children in the city of Manila (Manila) is a major problem in the country. The children are often seen on the streets, begging for money and food. They are often exploited by the police and other officials. The children are often used for begging and other illegal activities. The children are often used for begging and other illegal activities. The children are often used for begging and other illegal activities.

**Why use this as a topic:** The topic is relevant to the country's current situation. The topic is also a major problem in the country. The topic is also a major problem in the country. The topic is also a major problem in the country.

**Significance:** The topic is significant because it is a major problem in the country. The topic is also a major problem in the country. The topic is also a major problem in the country.

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**QUESTION 6:  
HOW DO WE ASSESS SOCIAL  
CONSTRUCTION OF  
KNOWLEDGE THAT OCCURS IN  
A LEARNING COMMUNITY BUILT  
WITH WISCOM?**

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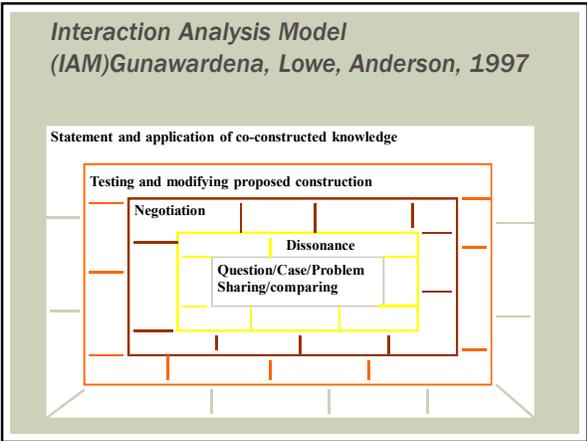
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**INTERACTION ANALYSIS MODEL (IAM)**

- Phase I: Sharing/Comparing Information
- Phase II: Discovery & exploration of Dissonance
- Phase III: Negotiation of meaning/Co-construction of knowledge
- Phase IV: Testing & modification of proposed synthesis or co-construction
- Phase V: Agreement statements/Application of newly constructed meaning

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**Research Question 1:**

**How did the case-based reasoning inquiry learning method support social construction of knowledge and lead to transformative learning online?**

• Data illustrates that social construction of knowledge occurred and was supported by groups negotiating the steps of the CBR process.

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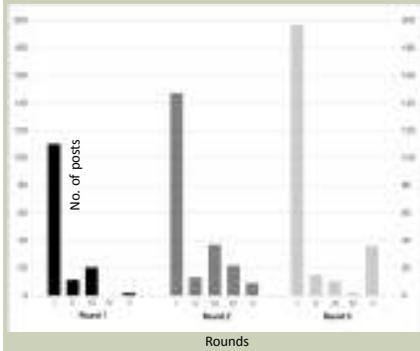
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**IAM PHASES IN EACH ROUND**




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**SOCIAL CONSTRUCTION OF KNOWLEDGE AND TRANSFORMATIVE LEARNING**

- Sharing and comparing necessarily involves awareness of others' perspectives.
  - Phase I interactions points directly to the beginnings of transformative learning
- Discussion posts demonstrate
  - critical reflection
  - awareness of others' perspectives
  - changes of perspectives necessary for transformative learning

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### TRANSFORMATIVE LEARNING – PROTÉGÉS

- "Actually we see street children every day and sometimes regard them as 'nuisance'. When we were assigned to do this as a group activity, I was thinking what to write! ... all of us got interested and see the real picture of street children and really wanted to do something for them by actually doing! ...I think all of us will see them differently when we meet them next time. As a result of this learning issue let us get together and try to help them not only online but in a real situation."

(Protégé 1, Round 1, Group 3, Forum 1, Post 43)

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### Research Question 2

- **How did the international e-mentors facilitate social construction of knowledge online?**

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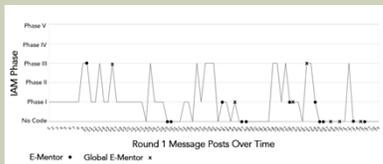
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### E-MENTOR PARTICIPATION IN DISCUSSION ROUND 1 OVER TIME



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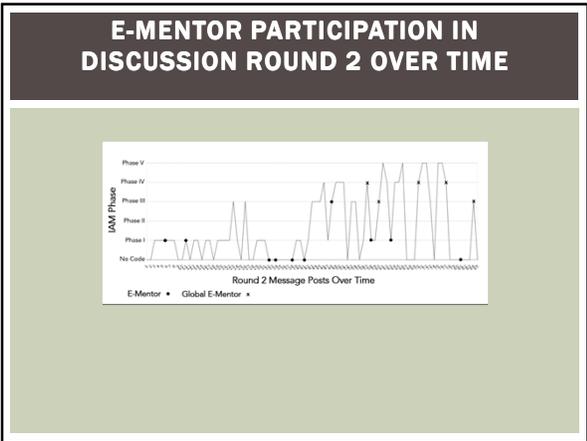
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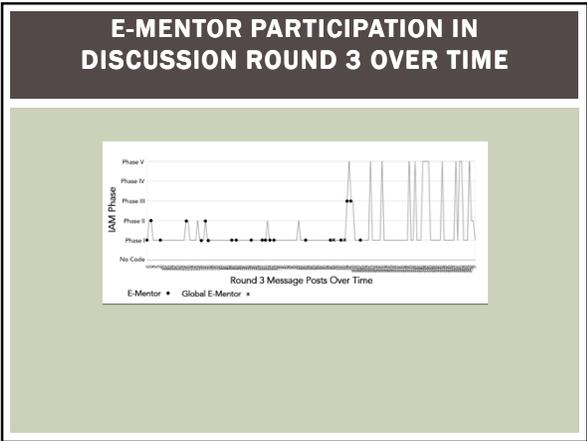
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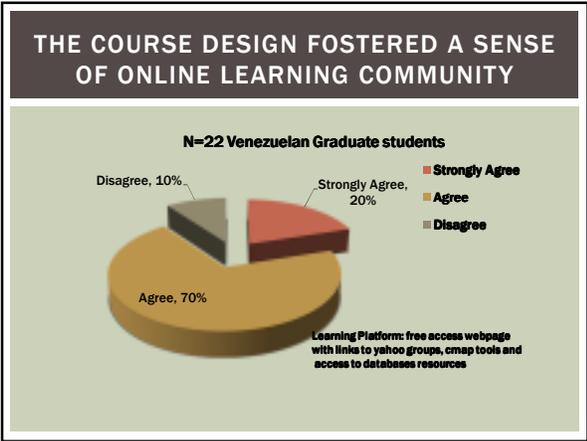
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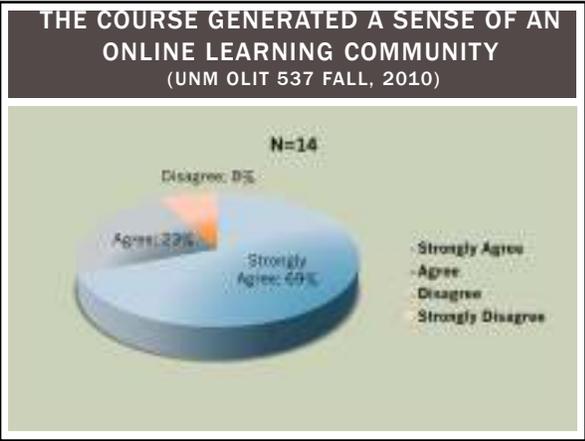
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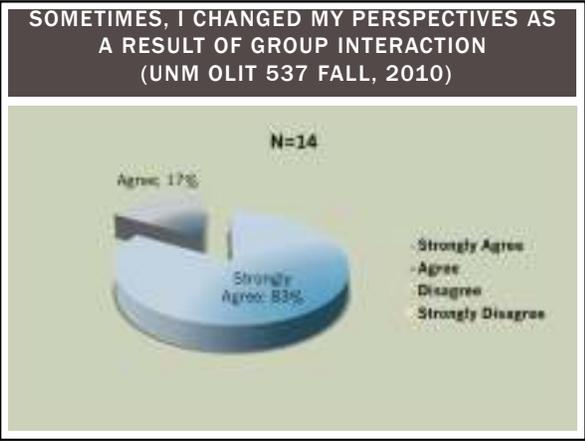
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**CONCLUSIONS AND LOOKING FORWARD**

1. Can the skills needed in a knowledge based society be developed in online learning communities?
2. WisCom was one design model that helped us.
3. Are you ready to take up the challenge of designing online learning communities?

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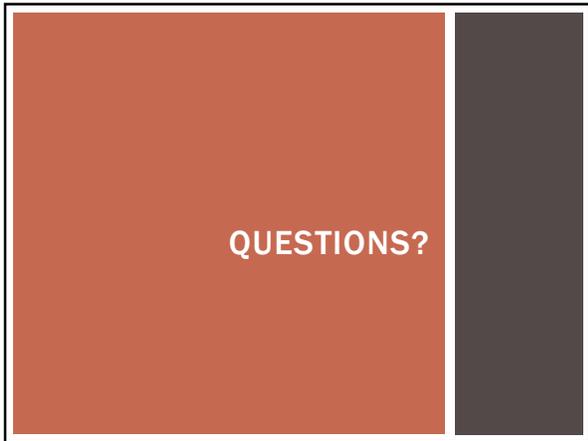
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