Planning Physical Learning Spaces for Nurturing Interdisciplinary, Global Problem-Solvers

Jeanne L. Narum, Principal—Learning Spaces Collaboratory
Marci Sortor, Provost and Dean of the College—St. Olaf College
Rick Vaz, Dean, Interdisciplinary and Global Studies—Worcester Polytechnic Institute
Agenda

❖ Introduction: Key Questions
❖ Part I: Learning to become ...
❖ Part II: Learning experiences enabling that becoming ...
❖ Part III: Learning spaces enabling those experiences ...
❖ General discussion

Facilitators

Jeanne L. Narum

Marci Sortor

Rick Vaz
Key questions to be addressed

• About how space matters

• About the context for nurturing 21st century interdisciplinary, global problem-solvers

• About the process of planning spaces for nurturing 21st century interdisciplinary, global problem-solvers
Key questions for you

• Part I: How does the question about *becoming* set the stage for discussions about nurturing 21st century leaders on your campus?

• Part II: Is there collective awareness on your campus about what kind of learning experiences nurture 21st century problem-solvers?

• Part III: What kind of spaces enable those experiences?
WHAT DO WE WANT OUR LEARNERS TO BECOME?

- Future focus
- Community engagement
- Adaptability
- Motivated
- Integrate knowledge across disciplines
- Intentionality in choices and decisions made
- Collaborative in creative processes
- Interactive with those around them
- Contributors involved in the world around them
- Continuous learners
- Tops in their fields
- Creative approaches
- Inquisitive
- Able to live in the 21st century world
- Developers and designers unbounded by convention
- Critical thinkers
- Informed citizens
WHAT EXPERIENCES MAKE THAT BECOMING HAPPEN?

- INFORMAL SERENDIPITOUS DISCOVERY
- REAL LIFE APPLICATIONS
- CROSS DISCIPLINARY EXPERIENCES
- FEELING COMFORTABLE IN A SPACE AND SO "CARED ABOUT" THAT YOU WANT TO CONTRIBUTE BACK AT A VERY HIGH LEVEL
- FEELING INVITED TO PARTICIPATE / SHEDDING INHIBITIONS
- EXPERIENCE OF TAKING RESPONSIBILITY FOR SOLVING A DEFINED PROBLEM IN A COLLABORATIVE SETTING
  (IF IT IS NOT INTENTIONAL IT MAY NOT HAPPEN)
- BACK AND FORTH BETWEEN PERSONAL REFLECTION AND COLLABORATION
- COLLABORATIVE INTENSIVE AS A TREAT
- FACULTY OPEN TO NEW IDEAS AND WAYS OF TEACHING AND DEMONSTRATING ADAPTABILITY AND THE EVOLUTION OF THINKING
- ABILITY TO SHARE IDEAS READILY
WHAT KIND OF SPACES ENABLE THOSE EXPERIENCES?

[Diagram showing various spaces and layouts, including learning in the landscape, teaching/learning spaces, and different layouts and technology, adaptable.]
LEARNERS/LEARNING/SPACE

- Informal serendipitous discovery
- Real life applications
- Cross disciplinary experiences
- Feeling comfortable in a space and so "cared about" that you want to contribute back at a very high level
- Feeling invited to participate/shedding inhibitions

- Experience of taking responsibility for solving a defined problem in a collaborative setting (if it is not intentional it may not happen)
- Back and forth between personal reflection and collaboration
- Collaborative intensive, treat
- Faculty open to new ideas and ways of teaching and demonstrating adaptability and the evolution of thinking
- Ability to share ideas readily

Different layouts and technologies, adaptable

Teaching/learning spaces

Learning in the landscape

Integrate knowledge across disciplines

Interactive with those around them

Contributors involved in the world around them

Continuous learners

Tops in their fields

Creative approaches

Innovative

able to live in the 21st century world

Developers and designers unbounded by generation

Critical thinkers

Informed citizens
Part I

WHAT DO WE WANT OUR LEARNERS TO BECOME?
Employers Endorse Key Elements Of Liberal Education

% saying colleges should *put more emphasis on* each learning outcome

<table>
<thead>
<tr>
<th>Element</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concepts and new developments in science &amp; technology</td>
<td>82%</td>
</tr>
<tr>
<td>Teamwork skills and the ability to collaborate with others in diverse group settings</td>
<td>76%</td>
</tr>
<tr>
<td>The ability to apply knowledge and skills to real-world settings through internships or other hands-on experiences</td>
<td>73%</td>
</tr>
<tr>
<td>The ability to effectively communicate orally and in writing</td>
<td>73%</td>
</tr>
<tr>
<td>Critical thinking and analytical reasoning skills</td>
<td>73%</td>
</tr>
<tr>
<td>Global issues and developments and their implications for the future</td>
<td>72%</td>
</tr>
<tr>
<td>The ability to locate, organize, and evaluate information from multiple sources</td>
<td>70%</td>
</tr>
<tr>
<td>The ability to be innovative and think creatively</td>
<td>70%</td>
</tr>
</tbody>
</table>
WHAT DO WE WANT OUR STUDENTS TO BE...

CREATIVE

FLEXIBLE

REASONER

ORIGINAL

INTER-DISCIPLINARY

COMMUNICATOR

AESTHETIC

CONFIDENT

ETHICAL

CIVIC-MINDED

LEADERS

TEAM PLAYER

PARTICIPANTS

CO-OPERATIVE

AFFILIATED

THOUGHTFUL

CURIOUS

ENGAGED
Part I

Key question for you

How does the question about *becoming* set the stage for discussions about nurturing interdisciplinary, global leaders? What lessons have you learned?
I understand they’re going to connect them. The Provost ordered it.

From: “Facilitating interdisciplinary research,” National Academy of Sciences
Part II
WHAT EXPERIENCES MAKE THAT BECOMING HAPPEN?
Computer Wins on ‘Jeopardy!’: Trivial, It’s Not
Part II

Key question for you

Is there collective awareness on your campus about what kind of learning experiences nurture 21st century ID, global problem-solvers?
Part III
What kind of *spaces* enable those experiences?