21st Century Skills and Online Learning

1 What is it?

21st Century skills equip students with the competencies required for this fast-paced information age. It includes the 4C's: Creativity, Critical thinking, Communication and Collaboration; in addition to information literacy, media literacy, technology literacy, and career and life skills. Instructors can create a learning environment that promotes these skills through intentional instructional design, quality curriculum and meaningful assessments.

2 Why is it important?

Technological and telecommunication advancements have made information easily accessible in the 21st century. However, we need to prepare our students to move beyond the accumulation of content knowledge. 21st century skills are not restricted to cognition alone but rather the interdependencies of cognitive, social, and emotional characteristics. The emphasis of education has now shifted from reading, writing, and arithmetic to teamwork, problem solving, interpersonal skills and critical thinking to ensure success in the **21st century workplace.**

3 How to do it?

Online instructors should promote 21st century skills directly, intentionally and measurably in their courses.
Instructors who promote critical thinking help online students to:

- Analyze, evaluate and interpret, evidence, arguments, claims, and beliefs
- Synthesize and connect information and arguments
- Critically reflect on learning experiences and processes

How to promote critical thinking?
- Real-world applications
- Project-based assessments
- Inquiry- and problem-based approaches
- Article critiques
- Case studies
- Discussion boards (See "Facilitating Your Online Discussions")

Instructors who promote communication will help online students to:
- Articulate thoughts and ideas effectively in a variety of ways
- Use communication tools to inform, instruct, motivate, and persuade
- Listen effectively to decipher meaning, values, attitudes, and intentions
- Listen and speak when appropriate
- Conduct themselves in a respectable and professional manner (Netiquette).

How to promote communication?
- Team projects
- Project-based learning assignments
- Online presentations
- Introduce various online communication tools

Instructors who promote collaboration help online students to:
- Work effectively and respectfully with diverse teams.
(See "Teamwork" and "Cultural Competence")
- Share responsibility for collaborative work
- Give value to individual contributions made by each team member
- Create team agreements and assign roles.
(See " Teamwork")

How to promote collaboration?
- Set team projects
- Create digital artifacts in small teams
- Facilitate online discussions in teams

Instructors who encourage creativity help online students to
- Analyze, evaluate and refine own ideas
- Produce tangible and useful contributions to the work
- Communicate new ideas creatively
- Adopt new and diverse perspectives
- Demonstrate originality and inventiveness
- Understand real-world limits to new ideas
- Learn from mistakes

Digital literacy skills: They comprise: Information literacy, media literacy and technology literacy. Each literacy refers to specific skills.

Information Literacy (See "Information Literacy")
- Access information efficiently and effectively from many sources
- Evaluate information critically/ competently
- Apply information accurately and creatively to address a problem
- Identify ethical/legal issues

Media Literacy
- Access, critically evaluate, and create media.
- Analyze media messages and their purposes
- Understand and utilize media creation tools

Technology Literacy
- Use digital technologies to research, organize, evaluate and communicate information
- Use communication/networking tools and social networks appropriately (**Web 2.0 technologies**)
- Understand ethical/legal issues in accessing and using information technologies

Instructors who encourage career and life skills help online students to:
- Adapt to varied roles, contexts and changing priorities
- Incorporate feedback effectively

- Deal with praise and criticism
- Negotiate and balance diverse views
- Set goals and reflect, to gain expertise
- Improve time management skills and increase productivity

How to promote career and life skills?
- Roleplay
- Team projects that reflect real-world scenarios

Assessing 21st Century Skills:
Assessments should reveal a deep understanding rather than shallow knowledge. It is also imperative for online instructors to provide useful and timely feedback on student performance.
Tools to assess:
- Digital artifacts
- Portfolios
- Projects to solve problems using real-world data
- Case study analyses
- Group projects

4 Additional Resources
- **Teaching with web 2.0 technologies: Twitter, wikis & blogs - Case study.**
- **The 20 digital skills every 21st Century teacher should have.**
- **4Cs Digital Learning Menu**

5 References

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