The impact of information technologies within an art educational organization

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Definition of online learning communities

- Online learning communities are defined as groups of individuals that
  - share experiences,
  - learn together,
  - and engage in regular interaction though discussion and knowledge sharing activities relevant to their domain.
- People participate in online learning communities to achieve a shared learning objective through social networking and computer-mediated communication (Lave & Wenger, 1991).
- These learning objectives may be introduced by either the tutors or may arise out of discussions between participants that mirror their personal interests.

Mahara

- Guiding principle: learner-centered
- 'Pluggable', modular ePortfolio system
- Combines digital artifacts such as blogs, e-portfolios, forums, audio and video in a common social networking environment
- **"ePortfolios … are personal online spaces for students to access services and store work. They will become ever more useful as learners grow up and start moving between different types of learning and different institutions"** Secretary of State for Education and Skills, UK, January 2006.

Underlying Theories

- Social constructivism constitutes the most accepted theoretical framework that can be manifest in learning mediated through technologies (Kanuka & Andersen 1998).

- The link between actions and situations is achieved through meaning negotiation, where participants direct their efforts as to encompass intersubjectivity and/or shared meanings (Barwise and Perry, 1983).

Connectivism

- The rapid evolution of information and communication technology has given rise to a learning theory, known as connectivism

- Knowledge occurs through forming and creating meaningful networks.

- This perspective provided the theoretical basis of our analysis because:

  i) focus on the interaction between participants and technology, and

  ii) better understanding of the network's interactions, its context and how information flow and knowledge are produced (Siemens, 2004).

In our community

- Participation in the community gives rise to an interconnection which is aspired to transfer information, knowledge, and experience to all participants and the organization as an entity

- Every participant is interconnected through similar discipline networks and thus he creates informational flow to the community that in turn benefits the organization and the participants.

- E.g., students in a musical school may create music channels in YouTube, listen to web radio, communicate to other musicians in other schools and may participate in communities such as 'Drummer world' or 'Jumping fish'.

Why music?

- Understudied
- Numerous studies have stressed the importance of a new learning paradigm that would involve open-ended discovery and encourage unique, personal responses, as opposed to predetermined objectives and right or wrong answers (e.g. ArtsConnection, 1996; Eisner, 1994; Gardner, 1973).
- Nature of music education

Nature of music education

- Music practice entails:
  - Social interaction
  - Development of communication skills.
  - Verbal response,
  - Discussion
  - Analysis
  - Reflection as the most important aspects of producing and experiencing arts.

Learning

- Group learning requires 1. intentional activity, 2. collective reflection, and 3. participatory decision making.

- Learning requires social activity and engaging in involvement in the active manipulation and experimentation with ideas and artifacts in authentic contexts.

- Intellectual development is a process of negotiation of meaning with others during every day practice.
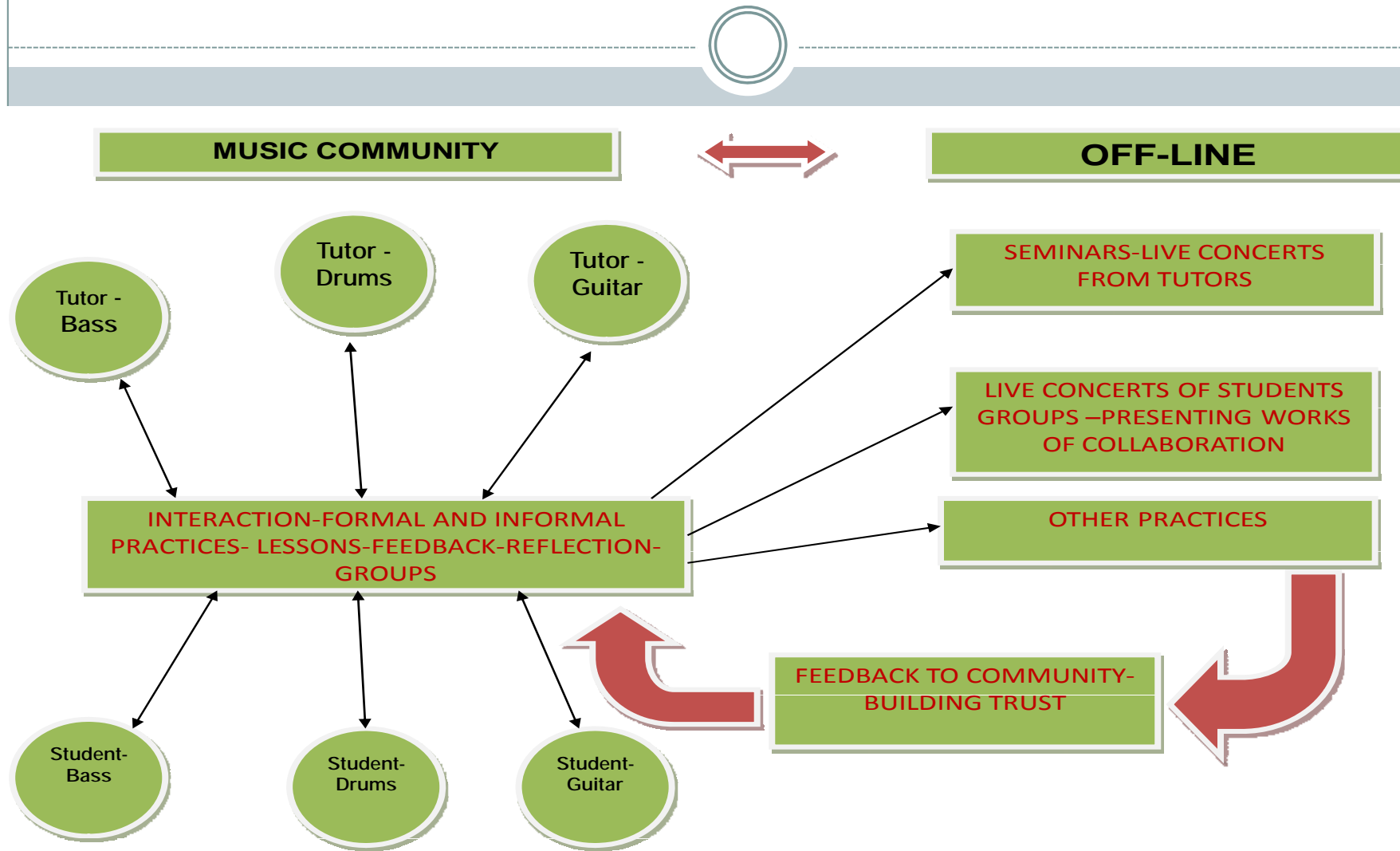
Goals of the community

1. Combine formal and informal learning
- <u>Formal learning</u>: goals, objectives, assessment are set by the teacher and the organization
- <u>Informal learning</u>: development of non-traditional social learning environments that would foster interactive, non-linear and self-directed learning processes
    - 'Formal – informal should not be regarded as a dichotomy, but rather as the two poles of a continuum' (Folkestad, 2006, p. 135)
2. Foster collaboration and reflection
3. To regulate all the informational flow that participants create as they develop networks for supporting self teaching

Features of the platform

- The structure of the platform provides a cohesive model for interaction through tools that have been found to be of great importance for promoting collaborative learning, reflection, interaction and structured knowledge modes.

- Additional services can be applied in order to have synchronous communication and presentation of cultural activities such as live concerts and seminars.

Networking of the community

MUSIC COMMUNITY ⟷ **OFF-LINE**

- Tutor - Bass
- Tutor - Drums
- Tutor - Guitar

INTERACTION-FORMAL AND INFORMAL PRACTICES- LESSONS-FEEDBACK-REFLECTION- GROUPS

- Student-Bass
- Student-Drums
- Student-Guitar

SEMINARS-LIVE CONCERTS FROM TUTORS

LIVE CONCERTS OF STUDENTS GROUPS –PRESENTING WORKS OF COLLABORATION

OTHER PRACTICES

FEEDBACK TO COMMUNITY- BUILDING TRUST
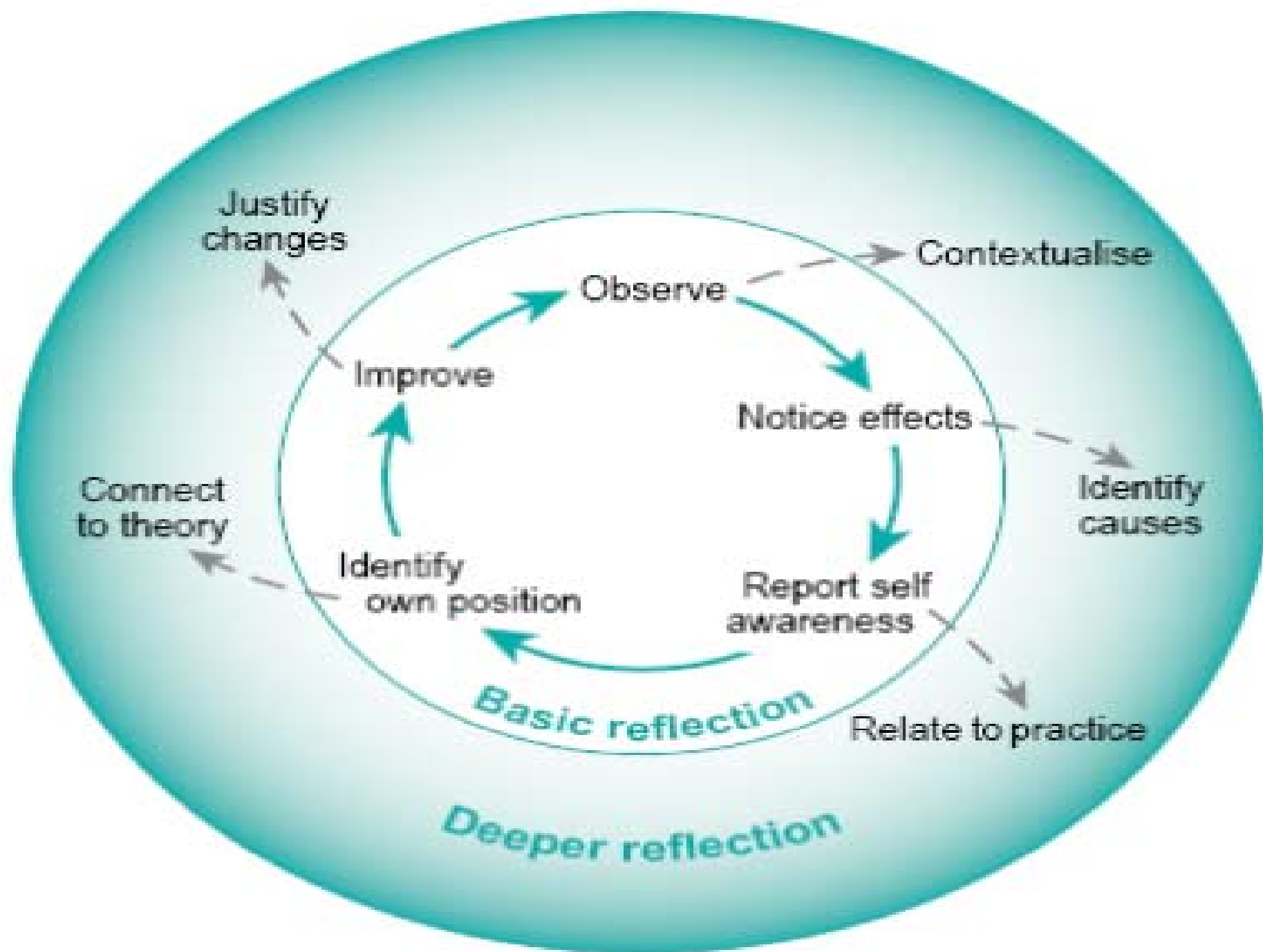
Collaborative learning

- Collaborative learning refers to methodologies and environments in which learners engage in tasks in which they depend on each other and share experiences through active interaction.
- Online learning communities are rooted
- Students virtually teach one another.
- Students support teacher's instructions and through reflective practices evaluate their results and the educational process.
- Learning process becomes shared, externalized and more active as compared to a traditional method that is merely results oriented.
- Teacher's role is also changed (from expert to learner himself)

Reflection

- Reflection is rooted mainly on the work of Schön (1987, 1991)
- Formal educational programs should have a specific link between theory and application.
- Students need to know why they are learning something, its relevance to their current practice and how it enhances their future learning.
- In our platform, students are expected to become aware of their thinking process at the time of learning and therefore deepen their own learning insights through tasks and activities.

Basic reflection

Observe → Notice effects → Report self awareness → Identify own position → Improve → Observe

Deeper reflection

Contextualise · Identify causes · Relate to practice · Connect to theory · Justify changes

Site staff-moderators

- Teaching staff of the institution participating in the platform is automatically assigned to moderator roles
  - monitor activities and tasks, give guidelines for students' needs.
- Initially, the role of the students is limited to simple membership (personal development and social networking)
- Students with high participation, and in collaboration with the teachers, may become moderators as well.
- Visitors have access only in those pages of the platform that the participants decide to display in public.

Teachers' roles

- Declare their full name and expertise on the display name setting (e.g. Marios Ioannou-drum tutor)
- Create lessons in their portfolios for the students in a standardized formal (name, purpose of lesson, to whom concerns, relevance, application, short description, links, resources)
- Provide links and media such as mp3, texts, give feedback and create subgroups with other teachers and students (e.g. Rhythmic section in jazz style of the 50's).
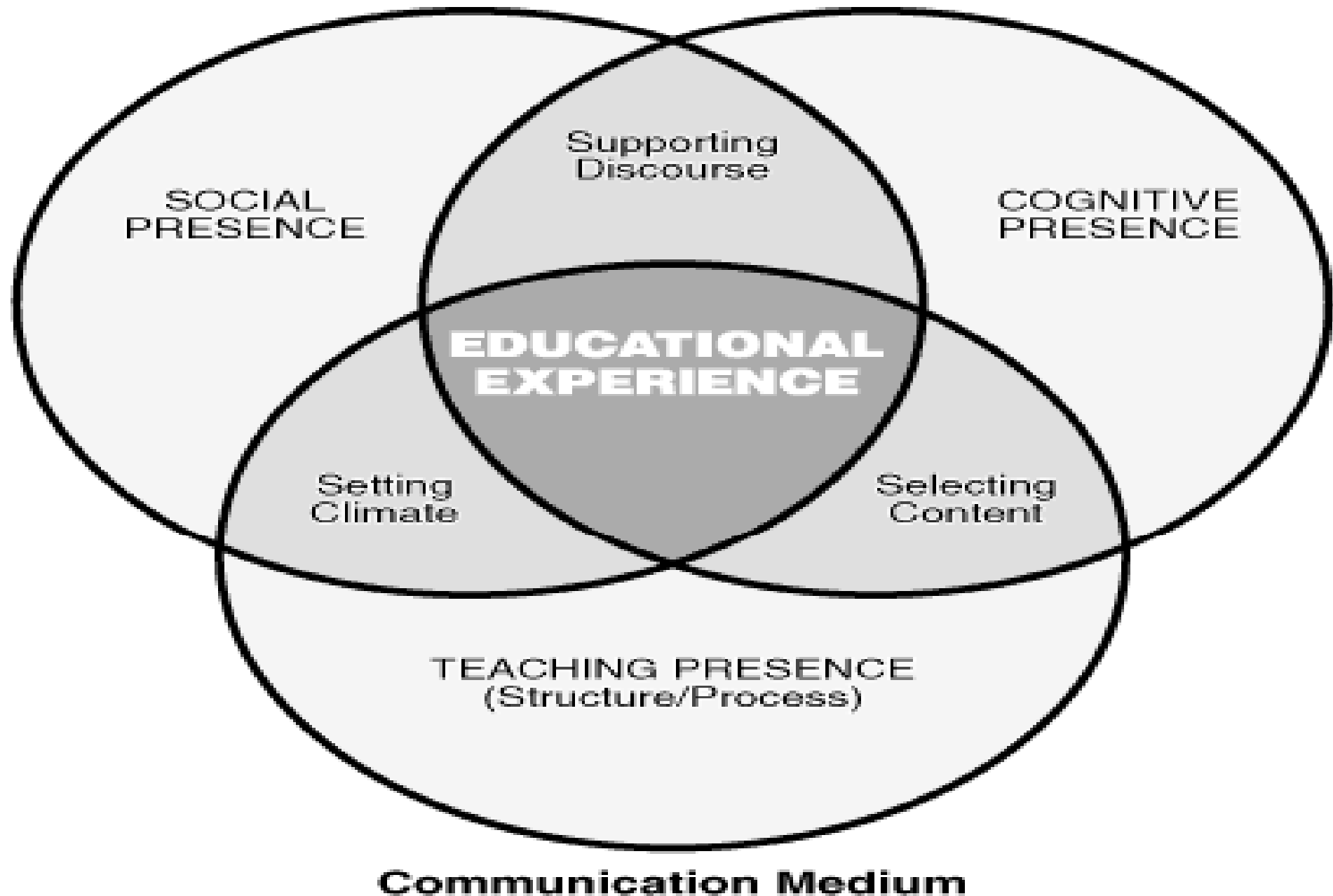
Students

- Declare real name, level of education, and subject of studies e.g. piano studies.
- This provides the base for networking in terms of interest and educational level.
  - E.g., a first-year piano student seek advice not only from teachers but also from a student with similar interest and/or higher level.
- Students follow the curriculum that is presented in the platform but at the same time are free to give feedback and express their personal interests by creating forums, blogs, views, subgroups etc.

Evaluation of online communities

- Since interaction is the cornerstone of all educational communities

➤ cognitive presence (i.e. interaction with content)

➤ social presence (i.e. interaction among students)

➤ teaching presence (i.e. interaction with teachers)

have been reckoned as essential to communities of inquiry (Garrison & Cleveland-Innes, 2005)

Community of Inquiry

SOCIAL PRESENCE

COGNITIVE PRESENCE

Supporting Discourse

EDUCATIONAL EXPERIENCE

Setting Climate

Selecting Content

TEACHING PRESENCE (Structure/Process)

Communication Medium

Success of online communities

Success of online communities determined by:

- **Sociability**
  - communities' purposes
  - its people
  - the policies and usability, in terms of dialog and social interaction support, information design, navigation and access.

- **Usability**
  - Dialog and social support
  - Information design
  - Navigation/accessibility

Sociability

Purpose

- Message types
- Number of messages
- Quality of contribution

Members

- Number of participants
- Demographics
- Roles
- Members' experience

Policy

- Policy effectiveness

Usability

Dialog and social support

- Time to perform actions (e.g. create views, blogs)
- Number of errors while performing these actions
- User's satisfaction

Information design

- Time to acquire info (e.g. help to upload video)
- Access in the info without error
- User's satisfaction

Navigation/ accessibility

- Time to learn to navigate
- Easy navigation?
- Number of errors
- User's satisfaction
- Access to software components
- Time needed to upload-download

Research methodology

- **Mixed-methods approach**
  - Qualitative: interviews with teachers and students, observation
  - Quantitative: questionnaires about attitudes, user satisfaction and "hard data" (such as time needed to complete a task, messages sent etc)

- This approach has been widely implemented in studying communities of practice since quantitative designs alone cannot capture the nature of social realities developed through interacting between self and others (Denscombe, 2008; Verrastro & Leglar, 1992).

Student success

- Positive Feedback
- Recommendations
- Increased Comprehension, Achievement
- High Retention in Program
- Completion Rates or Course Attrition
- Jobs Obtained, Internships
- Enrollment Trends for Next Semester

Student Success

- Message complexity, depth, interactivity
- Collaboration skills
- Problem finding/solving and critical thinking
- Challenging and debating others
- Case-based reasoning, critical thinking measures
- Portfolios, performances

Student Basic Quantitative

- Grades, Achievement
- Number of Posts
- Participation
- Computer Log Activity—peak usage, messages/day, time of task or in system
- Attitude Surveys

Instructor success

- High student evaluations
- More signing up
- High student completion rates
- Utilize Web to share teaching
- Varies online feedback and assistance techniques

Conclusions

- Sociability and Usability are critical factors for the design of the community

- The use of the platform gives a variety of possibilities for educational and cultural activities

- It is important that the platform supports video and audio recordings

- Additional services of synchronous communication and streaming, can be used to broadcast seminars and live concerts and give on line lessons