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Towards the Development of a New Model for
Best Practice and Knowledge Construction in
Virtual Campuses

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Towards the Development of a New Model for Best Practice and Knowledge Construction in Virtual Campuses

**European Commission and Virtual Campuses**

European Commission workshops held in 2005 to explore the issues associated with virtual campuses highlighted the need for a critical review of existing projects and initiatives (EACEA, 2005).

The workshop highlighted a range of issues that affected the successful implementation and deployment of virtual campuses and their long term sustainability. It was felt that virtual campuses generally have very little contact and interoperability with each other due to:

- general lack of awareness about other virtual campuses;
- lack of self-promotion/dissemination by virtual campuses;
- cross-cultural and linguistic barriers to communication.
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PBP-VC
Promoting Best Practice in Virtual Campuses

- It is a 2 year EACEA co-financed project (March 2007 - February 2009)
- It aims at providing a deeper understanding of key issues and critical success factors underlying implementation of Virtual Campuses (VCs)
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PBP-VC
Promoting Best Practice in Virtual Campuses

It aims at providing:

- A deeper understanding of key issues and success factors in EACEA funded VCs projects
- A practical framework to help guide process of creating best practice in VCs
- Examples of best practices, case studies
- Raised awareness of how institutional transformation can be brought about

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PBP-VC
Promoting Best Practice in Virtual Campuses

It has to face the following difficulties:

- Working with key stakeholders throughout EU and beyond
- Collecting, analyzing and evaluating relevant amount of data and results from eLearning and VC projects, which are scattered
- Avoiding the risk of seriously diminishing important issues and lessons from past experiences (also outside EACEA)
- Urgent need of sharing the know-how in relation to eLearning experiences and VC projects
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PBP-VC
Promoting Best Practice in Virtual Campuses

- First step towards the development of a Framework for Best Practice
  - Investigation into papers, reports, web-based content of EACEA VC projects 2004-2006
  - Development of an initial tentative model of issues underpinning best practice in VCs as result
  - Proposal of a first model, based only on initial literature based investigation

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ISSUES UNDERPINNING BEST PRACTICES IN VIRTUAL CAMPUSES

- Organisational Issues
- Technological Issues
- Pedagogical Issues
- Financial Issues
- Consolidation Issues
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ISSUES UNDERPINNING BEST PRACTICES IN VIRTUAL CAMPUS

- Organisational Issues
- Technological Issues
- Pedagogical Issues
- Financial Issues
- Bureaucracy & Administration
- Language, Culture & Gender

Teamwork, Roles & Responsibilities

Legal

Governmental & Political

Consolidation Issues

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ISSUES UNDERPINNING BEST PRACTICES IN VIRTUAL CAMPUSES

Teamwork, Roles & Responsibilities

Bureaucracy & Administration

Language, Culture & Gender

Organisational Issues

Consolidation Issues

Governmental & Political

Evaluation

Technological Issues

Pedagogical Issues

Financial Issues

Appropriate Technology, Infrastructure & Standards

Guidance and Support for Staff & Students

Legal
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ISSUES UNDERPINNING BEST PRACTICES IN VIRTUAL CAMPUS

- Organisational Issues
  - Teamwork, Roles & Responsibilities
  - Bureaucracy & Administration
  - Legal
  - Governmental & Political

- Technological Issues
  - Evaluation
  - Appropriate Technology, Infrastructure & Standards

- Pedagogical Issues
  - Guidance and Support for Staff & Students
  - Quality & Evaluation
  - Appropriate Pedagogical Approaches & Models

- Financial Issues
  - Guidance and Support for Staff & Students
  - Quality & Evaluation
  - Appropriate Pedagogical Approaches & Models
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ISSUES UNDERPINNING BEST PRACTICES IN VIRTUAL CAMPUS

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- Pedagogical Issues
  - Evaluation
  - Appropriate Technology, Infrastructure & Standards
  - Guidance and Support for Staff & Students

- Financial Issues
  - Cost/Benefit Analysis
  - Appropriate Pedagogical Approaches & Models
  - Quality & Evaluation

- Technological Issues
  - Appropriate Costing Methods

- Consolidation Issues
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ISSUES UNDERPINNING BEST PRACTICES IN VIRTUAL CAMPUS

- Organisational Issues
- Technological Issues
- Pedagogical Issues
- Financial Issues

- Teamwork, Roles & Responsibilities
- Bureaucracy & Administration
- Language, Culture & Gender
- Dissemination
- Marketing
- Accreditation
- Legal
- Governmental & Political
- Evaluation
- Appropriate Technology, Infrastructure & Standards
- Guidance and Support for Staff & Students
- Quality & Evaluation
- Appropriate Pedagogical Approaches & Models
- Appropriate Costing Methods
- Cost/Benefit Analysis

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Organisational Issues
- Teamwork, Roles & Responsibilities
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Technological Issues
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Pedagogical Issues
- Appropriate Pedagogical Approaches & Models

Financial Issues
- Appropriate Costing Methods
- Cost/Benefit Analysis

Evaluation
- Sustainability – meta level component

Appropriate Pedagogical Approaches & Models

Guidance and Support for Staff & Students

Quality & Evaluation

Appropriate Costing Methods

Cost/Benefit Analysis

Appropriate Technology, Infrastructure & Standards

Evaluation

Sustainability – meta level component

Teamwork, Roles & Responsibilities

Bureaucracy & Administration

Language, Culture & Gender

Consolidation Issues

Dissemination

Marketing

Accreditation

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Contexts for the application of the Issues
The tentative model is far from being complete since it merely illustrates the main issues that have been identified so far from an initial investigation into the available literature relating to EACEA virtual campus projects.

To better portray the contexts for the application of the issues in the figure the table below, where subjects and the whole organization are considered, can be useful.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Individuals</th>
<th>Organization</th>
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</thead>
<tbody>
<tr>
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<td>Consolidation</td>
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Guiding Principles for the Development of an Online Constructivist Learning Environment Based on Problem-Based Learning

1. Allow learners to choose a project grounded in professional practice. The project should be sufficiently complex to develop analytical and problem-solving skills. It should also be personally meaningful and relate to the real-world.

2. Encourage learners to take responsibility (ownership) for learning and to be aware of the knowledge construction process.

3. Allow learners to develop their own processes to reach a solution.

4. Provide learners with the opportunity to experience and appreciate other perspectives (part of the next principle?).

5. Provide opportunities for interaction and collaboration (learner-learner, learner-teacher, or learner-system).

6. For group-based work, there must be ‘group goals’ and ‘individual accountability’ for effective collaborative learning (Slavin, 1989).

7. Ensure that the learning environment motivates, engages, and challenges the learner. The environment should support the cognitive preference of the learners (Connolly et. al., 2007).

8. Provide feedback mechanisms to enable learners to be fully aware of their progress.

9. Provide support mechanisms for learners using coaching and scaffolding (which should gradually be removed).

10. Be flexible to support different learning styles.

11. Encourage learners, and provide mechanisms for learners, to articulate knowledge and thinking throughout the project.

12. Encourage learners, and provide mechanisms for learners, to reflect on their activities both during the project and after completion of the project. This reflection should be both group-based and individual-based.

13. Provide opportunities for debriefing at the end of the project.

14. Provide an integrated assessment (the instrument of assessment is the project itself, which can be assessed in a variety of ways).
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Knowledge Construction

**Individual knowledge** - autonomously interacting with phenomena, real or virtual.

**Community knowledge** - being an active part of the community of learners or the community of practice they are immersed in, where mediation and support from peers play an important role.

**Social knowledge** - socially interacting with other individuals in the community and with other communities. This knowledge construction process is shown as a tri-partition of the individual’s knowledge.