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IMPLEMENTATION OF ERASMUS PLUS MaCICT PROJECT IN BREST STATE TECHNICAL UNIVERSITY BASED ON NEW APPROACHES AND METHODS

Introduction

Growing interest in internationalization of higher education can be explained by different reasons.

Firstly, the process of globalization of the economy and labour markets pushed demand in internationally-competent workers with knowing of foreign languages, social and intercultural skills. As world economies become increasingly inter-connected, multilingualism and intercultural skills have grown in importance on a global scale. Secondly, an export of educational services has become one of the sources of revenue for higher education institutions (HEIs) and national economies in many countries.

Advantages of internationalization of higher education are apparent: improvement quality of training, joint research projects, implementation of international quality standards and enlargement of international cooperation. Currently international dimension of higher education is being increasingly promoted on the national and institutional levels in many countries. It should be noted that both levels are very crucial.

The national level has a significant influence on the international dimension of higher education through policy, funding, programs and regulatory frameworks. Yet it is usually at the institutional level that the real process of internationalization is taking place [1].

To some extent, institutional level is a mirror which reflects national policy. More and more higher education institutions became independent and strategic actors in the process of internationalization.

Theoretical background

The traditional classroom often looks like a one-person show with a largely uninvolved learner. Traditional classes are usually dominated by direct and unilateral instruction. Traditional approach followers assume that there is a fixed body of knowledge that the student must come to know. Students are expected to blindly accept the information they are given without questioning the instructor. The teacher seeks to transfer thoughts and meanings to the passive student leaving little room for student-initiated questions, independent thought or interaction between students. Even the in activities based subjects, although activities are done in a group but do not encourage discussion or exploration of the concepts involved. This tends to overlook the critical thinking and unifying concepts essential to true science literacy and appreciation. This teacher-centered method of teaching also assumes that all students have the same level of background knowledge in the subject matter and are able to absorb the material at the same pace.

In contrast, constructivist or student-centered learning poses a question to the students, who then work together in small groups to discover one or more solutions. Students play an active role in carrying out experiments and reaching their own conclusions. Teachers assist the students in developing new insights and connecting them with previous knowledge, but leave the discovery and discussion to the student groups. Questions are posed to the class and student teams work together to discuss and reach agreement on their answers, which are then shared with

the entire class. Students are able to develop their own understanding of the subject matter based on previous knowledge, and can correct any misconceptions they have. Both teaching styles can lead to successful learning but it has been shown that students in the constructivist environmental demonstrated more enthusiasm and interest in the subject matter. In fact, repeated research has found that teacher-centered lessons can be less or non-productive, and in some cases, detrimental to the students’ learning process. Many teachers are hesitant to try the constructivist model, because it requires additional planning and a relaxation of the traditional rules of the classroom [2].

Methodology

The goal of teaching is more than just the transfer of content from one person to another. The way that people are taught affects how and what students learn. Particular pedagogical approaches have been developed and refined to promote a variety of different kinds of learning; for example, learning of explicit content, learning of particular ways of doing things, or the learning of values and habits. This variety increases the decisions that teachers must make.

Frequently, teachers make choices about their pedagogy not based on their own preference but according to a local/national curriculum structure. Many curricula now include “core competencies”, “transversal skills” or “general capabilities” which point towards certain kinds of pedagogy and provide alternative starting points for learning design. Some curricula are constructed to be “competency-based”, with the idea that students should move through the development of different skills and knowledge levels at their own pace. Many of the so-called innovative pedagogies call for curricula where students take an active role in managing their learning; they are expected to develop the habits of metacognition in terms of knowing what one knows and what one needs to understand better. A curriculum may be more or less specified, so teachers may then have different scope

in the extent to which they or their students have choice about what knowledge to focus on.

Often the cornerstone of university teaching, a lecture can be an effective method for communicating theories, ideas, and facts to students. Typically a structured presentation, a lecture should be designed to include certain procedures in order to be effective-procedures that research and expert lecturers have identified as essential to assist student learning. The basic purpose of lecturing is the dissemination of information. As an expert in your field, you identify important information for the learner and transmit this knowledge in the lecture. The lecture method is recommended for high consensus disciplines-those in which there is agreement on the fundamental principles and procedures, such as professional courses for IT-specializations.

Advantages/Disadvantages

The following are the basic advantages of the lecture method: It provides an economical and efficient method for delivering substantial amounts of information to large numbers of student. It affords a necessary framework or overview for subsequent learning, e.g., reading assignments, small group activities, discussion. It offers current information (more up to date than most texts) from many sources. It provides a summary or synthesis of information from different sources. It creates interest in a subject as lecturers transmit enthusiasm about their discipline. There are disadvantages to using the lecture method as a primary teaching method. An effective lecture requires both extensive research and preparation and effective delivery skills to maintain students' attention and motivation. In addition, the lecture has other drawbacks: It does not afford the instructor with ways to provide students with individual feedback. It is difficult to adapt to individual learning differences. It may fail to promote active learning unless other teaching strategies, such as questioning and problem-solving activities, are incorporated into the lecture. It does not promote independent learning.

Planning a Lecture

How is a lecture planned and prepared? It is important to recognize that research findings and expert opinion have identified that certain teaching procedures should be included in a lecture. They are essential to an effective lecture—one that helps students to learn most easily and effectively. Based on learning theory, these procedures provide guidelines for preparing a lecture. An effective lecture is composed of three components, an Introduction, Body and Conclusion, designed to promote and support learning.

The Introduction usually is the first three to five minutes of the lecture. This time is crucial in determining how well students learn and retain the information to be presented. The main purpose is to provide a framework for students' learning, providing the structure for the lecture's content information. It is also necessary to gain students' attention. If we fail to capture students' attention during the introduction, it is unlikely that we will retain it during the rest of the lecture. The introduction should do the following: Establish a relationship with the audience. Make warm-up comments and initiate rapport to set the tone of the class. Establish friendly communication to provide a positive learning environment in which students feel comfortable. Use an "ice breaker" to introduce yourself during your first meeting with students and maintain an approachable relationship with students in subsequent classes. Gain attention and foster motivation. Relate to students' goals and interests. You might present a meaningful problem to students and describe the lecture as a solution to the problem. You might also introduce the lecture by describing how it will help students to be successful in their education and careers or by relating it to your students' inherent curiosity. Prompt awareness of relevant pre-existing knowledge. Students need to see how the "new" lecture information relates to their existing knowledge or experience. This not only promotes interest and motivation, but also is a first step in cognitive information processing. Clarify the purpose of the lecture and describe how it is

organized. Research supports a correlation between clarity of objectives and student achievement; students will achieve at higher levels if they know what knowledge and skills they should gain from this instruction. Announce the lecture topic as a title. Make a statement about the topic and how it will be developed. Make a generalization about the topic or simply list the objectives.

The Body of the Lecture covers the content in an organized way. Since this component is allotted the greatest amount of class time, it includes many more teaching procedures than the introduction and conclusion. This is where you must consult your lecture notes while at the same time maintaining rapport with your students. Lecture material is a combination of facts, concepts, principles, and generalizations. Concepts represent a class of terms (an idea usually expressed in a word), and principles communicate relationships among concepts. Generalizations are relationships between or among concepts expressed at a higher level of abstraction than a principle. In a lecture, the tendency might be to present one fact after another. This type of information giving is ineffective because students cannot see the relationship or organization of the new ideas. Instead, it is best to present a concept (one idea) by first defining it and then giving many concrete examples of the concept. As you introduce new concepts, link them together into principles, and then into generalizations, each time adding concrete examples as you develop these relationships:

- Examples of relationships that can be used to organize lecture information include the following.
- Component (part to whole)—shows how a larger idea is composed of several smaller ones.
- Material to purpose—information or a procedure is presented followed by its purpose or use (the “what” followed by the “why”).
- Comparison—comparing two or more things using an explicit basis for comparison.

Use transition words as you present. Using transitions or links (“therefore,” “because,” “as a result”) show how pieces of lecture informa-

tion relate to each other. Verbal or oral cues also alert students to more significant information:

It is especially important to remember...

Please note the following...

You will need to memorize...

I will ask you to recognize...

You should be able to apply...

— Remember to include audiovisual aids while delivering your lecture. Using Power Point slides, transparencies, or even the chalkboard will enliven and strengthen the presentation of ideas and, thus, assist students' learning.

— Include active learning It is crucial to provide opportunities for active learning during any instruction, including a lecture. Active learning allows students opportunity to practice using the lecture information and obtain feedback on the accuracy of their responses. For example, during the lecture, ask questions or give students problem-solving activities that encourage them to use the information they should gain from the lecture. You could encourage students to think actively during a lecture by announcing at the beginning of the class period that you will interrupt your lecture midway so that students may write a one- minute paper on a topic derived from the lecture.

— At the end of the lecture, you can use the "minute paper" by asking students to respond in one or two sentences to the following questions:

What stood out as most important in today's lecture?

What ideas from today's lecture are still unclear?

— Capture Attention. Maintain attention throughout your lecture by employing techniques such as the following:

— *Vary student activities — lecture for 15 minutes and then provide an active learning activity;*

— *Change the mode of presentation (for example, oral to visual);*

— *Employ concept-related humor;*

— *Demonstrate enthusiasm about your subject;*

— *Encourage note taking by speaking slowly and repeating important information;*

— *Provide motivational cues (“On the next exam you will be asked to ...”).*

The Conclusion, the most frequently neglected component of the lecture, should be used to reinforce students’ learning of the information as well as to clarify any misconceptions regarding their understanding of the concepts presented. Try to do the following in your lecture conclusion: Repeat and emphasize main points. Signal students that you are going to summarize and reemphasize main points. Or, even better, have several students summarize your main points. This procedure will help you to get feedback as to whether or not students identified the important information. It is also helpful to rephrase information in order to clarify key ideas.

Encourage questions from students. To allow students time to review their notes and thoughts, pause for a few moments after asking for questions. Remember, however, that it is often difficult for students to respond to the vague “Any questions?” Instead, ask specific, leading questions. By doing so, you will encourage your students to review their notes and formulate questions of their own. In this way, any misconceptions can be clarified, and understanding can be reinforced.

Relate content to previous and subsequent topics. The last few statements in the conclusion should provide a connection between this lecture and previous lectures (as well as those to follow). As students see the relationship among major concepts presented in different lectures, they gain a sense of Lecture Delivery.

Nonverbal behaviors play a significant role in effective public speaking: they can enrich or elaborate the spoken message. There are basically two aspects to nonverbal behavior: body language and voice.

The following four elements make up body language:

Speaker-audience distance. The more objects and distance—psychological as well as physical—between speaker and audience, the more formal the atmosphere. If you desire to create a more informal atmosphere, you should reduce these barriers. Move from behind the lectern from time

to time and walk in the aisles as you present information or carry on discussions with students.

Body movement and stance. To communicate, you must compensate for distance by employing larger gestures and more volume. Body movement and posture can convey messages to your audience. For example, slouching communicates disinterest or boredom, pacing aimlessly with head down indicates nervousness, and standing stiffly indicates tenseness. Being animated during your lecture helps convey your own enthusiasm and interest to students; they recognize that you are not bored, nervous or tense.

Facial expressions. A significant portion of the emotional impact of a speaker's message is conveyed by facial expressions. Facial expressions tell students how you feel about them and yourself and give students cues to help them interpret the content of the message. Regular eye contact helps you establish credibility. Look directly at different individuals as though you were carrying on a conversation with them.

Gestures. Purposeful movements of the head, arms, hands and shoulders accentuate or dramatize ideas. Three characteristics of effective gestures include relaxation, vigor, and timing. Use your body to indicate a change of topic or transition. Voice variables allow the speaker to make a message clear and interesting. Some of the vocal characteristics of good speaking are as follows:

- Strength. Speak loudly enough so that the audience does not have to strain to hear.
- Enunciation. Make an effort to speak crisply, avoiding slurring or skipping parts of words in order to limit the possibility of misunderstanding.
- Pronunciation. Meet your audience's expectations in regard to acceptable pronunciation.
- Rate of speech. In a large lecture, with students concentrating on note taking, a rate of 120–130 words per minute is comfortable.
- Variety. Vary the characteristics of your voice in terms of rate, pitch, stress, pauses, volume and inflection.

- Pauses. Pauses can provide emphasis and allow students time to think and take notes. Furthermore, pausing indicates that you are a conscientious speaker who thinks about what you are going to say. However, filling in pauses with sounds like “um,” “ah,” “well-uh” make a presentation seem disconnected and can be distracting.

Additional hints for a successful lecture include the following:

1. Present an outline of the lecture (use the blackboard, overhead transparency or handout) and refer to it as you move from point to point.
2. Repeat points in several different ways. Include examples and concrete ideas.
3. Use short sentences. Stress important points (through your tone or explicit comments).
4. Pause to give listeners time to think and write.
5. Use lectures to complement, not simply repeat, the text.
6. Learn students’ names and make contact with them during the lecture.
7. Avoid racing through the last part of the lecture. This is a common error made by instructors wishing to cram too much information into the allotted time.
8. Schedule time for discussion in the same or separate class periods as the lecture.
9. Preparation reduces stress, frustration, insecurity and consequent ineffectiveness.

Conclusions

Currently, five universities of the Republic of Belarus take part in Erasmus+ project “Modernization of Master Curriculum in ICT for Enhancing Student Employability in Belarus” (MaCICT) to modernize the existing ICT curriculum in order to enhance employability of ICT master

students and to foster entrepreneurship and establishment of SMEs in the ICT sector.

Each of the five Belorussian partners has approved a list of ten courses to be upgraded. Course programs have been revised and modernization has begun. Course structure and presentation style is chosen by the lecturer independently.

LIST OF REFERENCES

1. Knight, J. (2004). Internationalization Remodeled: Definition, Approaches, and Rationales. *Journal of Studies in International Education*; 8(1), pp. 5–31.
2. Adams, Paul E. and Gerald H. Krockover (1999). *Stimulating Constructivist Teaching Styles Through the Use of an Observation Rubric*. *Journal of Research in Science Teaching*. Vol. 36, No. 8:955-971.