INNOVATIVE TEACHING METHODS IN VOCATIONAL TRAINING

Subject Brain Battle

Method application requires:
Adequate space to accommodate teams
Seating for participants
Office supplies
Remote controls for answers in multiple choice tasks
Prepared tasks / queries
Multimedia projector
Computer
This method is applicable for students of all professions in order to
assess their level of general and professional knowledge.
Students should be of medium and higher intellectual ability to
properly represent their team and compete on its behalf.
Advantages of the method:
Team work
Involvement of all team members
Knowledge is tested/ conveyed in a fun way, by playing a game.

Disadvantages of the method:
Individual testing is absent
Skills developed by this method:
Theoretical knowledge of their profession
General knowledge
Students' activities :
Interaction among teammates
Usage of brainstorming technique
Consideration of various possible answers.
Homework: can be assigned in context with the brain battle queries .
Testing: not applicable.
Possible improvements of the method: a testing system could be
applied.
Prepared by Adomas Pakalnis

Creation of PREZI Applications

Method application requires:
Classroom
Multimedia Projector
Internet connection
Theoretical learning material.

Method is applicable to students of the following professions:
Computer equipment assembler
Insurance consultant
Forwarding agent of logistics
Multimedia service provider
Computer projection operator
Students have to be generally skilled in ICT.

Advantages of the method:
Prezi.com is a new, more intuitive way of creating and sharing presentations. It is a kind of show which involves graphics and movement allowing for better self-expression and better conveyance of the message.
Prezi.com provides an opportunity to be a creator by using a variety of colors and shapes, interchanging various elements.
Prezi.com system means design, storage, review and is based on the Cloud technology.

Disadvantages of the method:
A more complicated management as compared to Powerpoint

Method helps to develop the following skills:
Creativity
Technical insights into the program
Ability to select presentation material
Students create presentations on designated topics while applying this method, which
results in higher self-reliance and ability to study individually.

Homework
Revision of previously analyzed theoretical material
Individual creation of presentations.

Prepared by Adomas Pakalnis

Learning based on video material

Method application requirements:
Computer with internet connection
Multimedia projector
Software to be studied with the assistance of video material
Method is applicable in teaching students of the following professions:
Computer equipment assembler
Insurance consultant
Forwarding agent of logistics
Multimedia service provider
Computer projection operator
Students have to be generally skilled in ICT.
Advantages of the method:
Suitable for individual learning
Possibility to recreate learning situations
Disadvantages of the method:
Not applicable to learning/ teaching in groups, teamwork.
Skills developed by this method:
Individual problem solving
Concentration
Application of the method: students watch video material, recreate actions seen during the teaching stage.
Homework: students master the usage and applications of ‚x' software.
Evaluation system: Teacher evaluates tasks performed by students using ‚x' software and knowledge acquired from the video material.

Prepared by Adomas Pakalnis

Project Method

What materials are required (equipment, premises, teaching/learning material):
Classroom, PC, software, projector, printer, task description for students, work samples.

The method is applicable to students of which professions/ used in teaching what subjects:
Computer graphics projection operator.

What level of students' ability is required: basic computer skills and basic knowledge of computer graphics.

Advantages of the method:
Promotes individual problem-solving skills
Active participation in learning process
Creativity
Stronger motivation and higher level of involvement in surrounding reality.

Disadvantages of the method:
Necessity of time planning and time management

What students' abilities are developed:
Creativity
Independence

Competences developed by students - computer graphics projection operators:
Ability to design/ project graphic objects
Ability to prepare a paste-up copy of a publication

Project Method

Students' activities while applying this method:
Pinpointing the task and giving it a title.
The Context is naming facts relevant to the problem/task.
Aims. That describes formulating long-term goals and short-term objectives.
Analysis of the problem/ task. General concept, stylistics etc. are discussed, samples analyzed.
Solving problems/ tasks. Drafts are drawn, tasks are completed by employing sufficient computer software.
Evaluation and self-evaluation of works and reports presented by students.
Teachers check the completed work and act only in consultants' capacity. Students consult each other.

The method encourages self-dependence in learning or teaching: Affirmative.
Homework: Even though the tasks are completed during the lessons, students are advised to search and analyze analogous examples on their own time and then present them in school.
Evaluation system: The teacher and students together evaluate completed work according in accordance with pre-established evaluation criteria.

   Possible applications of the method: the method can be used for any subject where problems are presented and solved, knowledge acquired and applied in practice, various skills improved.

Prepared by Aleksandra Balsienė

Integration Method

Materials required (equipment, premises, teaching/learning material): Classroom, PC, software, multimedia projector, printer, task description for students, work samples.

Applicable to students of which professions/ used in teaching what subjects:
Computer graphics projection operator, Computer projection operator.

Level of students' ability required: basic computer skills and basic knowledge of computer graphics.
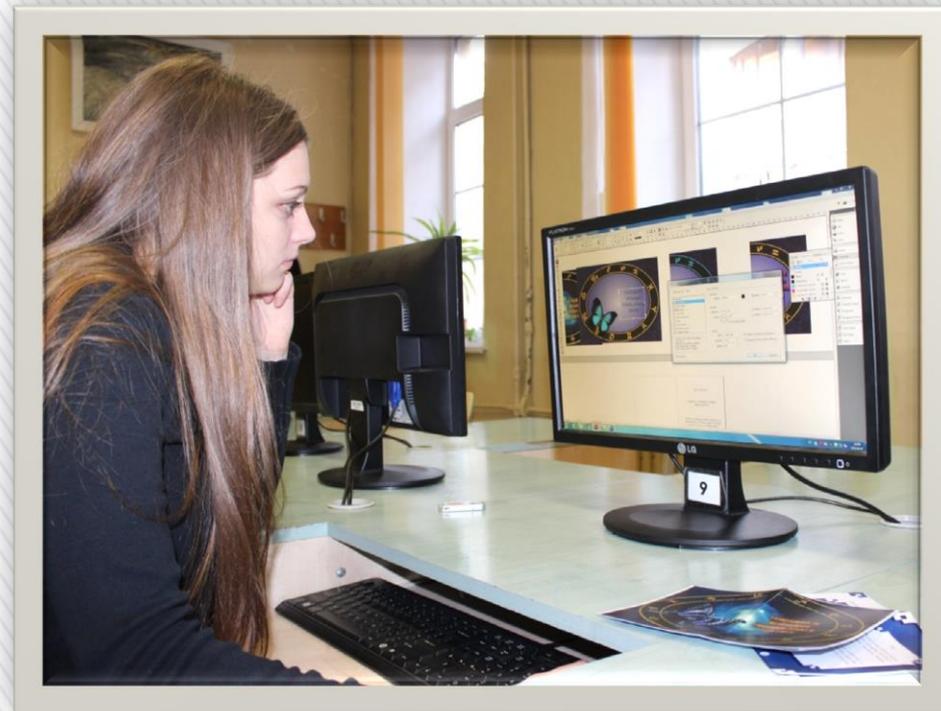
Advantages of the method:
Strengthened integration with other subjects of the curriculum.
Active participation in a learning process.
Stronger motivation and involvement in surrounding reality.

Disadvantages of the method:
Absent

What students' abilities are developed:
Creativity
Independence
Learning and problem-solving

Integration Method

Competences developed by students - Computer graphics operators:
Ability to design graphic objects
Ability to prepare paste-up copy of a publication
Understanding of social, legal and ethical aspects of ICT usage.
Competences developed by students – computer design operators:
Ability to depict object following certain requirements
Ability to draw geometrical elements.
Students' activities while applying this method:
Students title the task.
They become familiar with the topics of the subjects chosen from the programme (computer graphics + Theory of Colors + composition/ drawing/ advertising/ design).
Sample analysis and discussion.
Formulation and solution stages of the task. Drafts are drawn by hand, tasks executed by employing computer software.
Viewing, discussion and evaluation of the completed work.
Teachers act as consultants, help throughout the task completion process.
The method encourages self-dependence in learning / teaching: Affirmative.
Homework: None
Evaluation system: Evaluation criteria are presented and discussed e.g. conveyance of the topic, performance technique.
Possible applications: It can be used to link different subjects and ensure deeper understanding and applicability of those subjects.

Prepared by Aleksandra Balsienė

Film as a Tool for Critical Thinking

Supplies required: multimedia, recorded films, access to LFC website (Lithuania Film Center website).

Specialybės: logistas ekspeditorius, lokomotyvo mašinistas, kompiuterių derintojas – metodas taikomas per lietuvių kalbos ir literatūros pamokas.

Professions: Forwarding agent of logistics, locomotive driver, computer equipment assembler. The method is applicable in lessons of the Lithuanian language and literature.

Required students' abilities: they are able to analyze written (literary) text, formulate problem issues.

Advantages of the method: students, who have skipped reading the entire text, have an opportunity to learn the contents, historical context of the literary work, better understand the work through its filmed version, analyze it in the contemporary context. The method brings the literary work closer to actual reality.

Disadvantages of the method: it may "encourage" students to skip the reading stage and go straight to watching the film or its segments, which provides only partial information about the text. The information received is by itself an interpretation, so the students may form ill-informed opinions and be unable to criticize the text.

Film as a Tool for Critical Thinking

Skills developed: students learn to understand ideas and messages conveyed through the media of written text and film; understand metaphors, read and interpret literary text in the contemporary context; voice their own opinions; analyze and criticize; expand their cultural cognition.

Students' activities: following the analysis of written text, students analyze it by designated aspects, voice opinions, and discuss film fragments or the entire film.

The method fosters students' independent learning: it deepens analytical and interpretational skills, expands literary and cinematographic knowledge, assists in preparation for exams.

Homework: in the instance of an entire short film, generalization tasks are appointed. If the film is presented in segments, according tasks of analysis are assigned.

Evaluation: accumulative grade, evaluation for performing concrete tasks.

Possible improvements: students could be assigned to watch relevant film segments while preparing for upcoming tests. Possible cogitation task would be predicting future developments, consequences of certain behavior patterns, etc. Students could try out a strategy of interviewing an Author/ film director: "silent conversation" with the film makers after viewing the film, writing down imaginary questions and answers. **Suggested questions to a film director:** What is the main idea of this film? What message did he wish to convey/ show? Did he succeed to do that? Why did he choose this particular ending? What would he expect from the audience?

Prepared by Jurgita Sinkevičienė

Group Activities

Required material : textbook, hand-outs, ICT.

Professions: forwarding agent of logistics, locomotive driver, computer equipment assembler. The method is applicable in lessons of the Lithuanian language and literature

Required students' abilities: they are able to analyze a written (literary) text, recognize signs of historical context, voice and support their opinions.

Advantages of the method: students in groups analyze the texts by various aspects, share their findings and opinions with other groups, learn to criticize, work in teams. Weaker students feel encouraged to equally participate in discussions, they receive assistance from stronger students.

Disadvantages of the method: in equal opportunity groups, stronger students have lesser chances to demonstrate their abilities and express themselves.

Homework: to read the indicate a fragment of the text and answer questions relevant to aspects previously analyzed in class.

Skills developed: students learn to analyze a given text by different aspects (group members are assigned different tasks from the same text) and to convey their thoughts; they learn to cooperate, they can improve their ability to criticize and team working skills.

Students' activities: following the analysis of a text fragment, students are divided into several groups and appointed different tasks. They read the texts and tasks, contemplate and share opinions and ideas (15 min.). Next, students share the answers among groups and get one joint task – a problem question which has to be answered and then discussed by each group.

The method fosters students' independent learning: deepens their knowledge of history, improves their skills of learning by studying.

Homework: writing a paragraph on the topic (relevant to class work).

Evaluation system: accumulative mark.

Possible improvements: appointing individual tasks to group members according to their abilities.

The Eyeglasses

Required material: reference books, textbooks, ICT.
Professions: forwarding agent of logistics, locomotive driver, computer equipment assembler. The method is applicable in lessons of the Lithuanian language and literature

Required students' abilities: ability to analyze the text by a certain aspect.
Advantages of the method: students learn to understand the polysemy of texts while analyzing them by various aspects; they learn to express and discuss their points of view in groups, present their interpretations. Weaker students feel more confident to share their opinions, stronger students learn to help their weaker peers.
Disadvantages of the method: weaker students tend to lose the initiative or sometimes get overshadowed by their stronger peers.

Skills developed: students learn to analyze texts by various aspects, cooperate and develop team working skills, share points of view, study individually.
Students' activities: they analyze the appointed text by one or several different aspects, link it to a context.
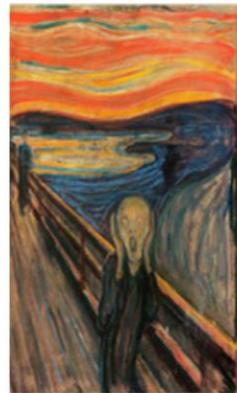**The method fosters students' independent learning:** encourages to accumulate and process material concerning additional contexts besides the works by a particular author, prepare and execute presentations.
Homework: prepare and execute presentations on the appointed aspect, previously analyzed by another group of students.
Evaluation system: students' self-evaluation, the group is evaluated for best answers, insights, activity, cooperation.

     Possible improvements: appointing individual tasks to group members in advance so that students could present them in class and afterwards work in groups looking for solutions to problem issues.

Prepared by Jurgita Sinkevičienė

Employment of data management systems in vocational training lessons

Contemporary teaching and learning trends not only demonstrate scientific progress, they also reflect changes and development of the society. Therefore teachers, while teaching by new learning programs, simultaneously have to be ready to adapt and apply novelty and innovation to their everyday working practices. They also have to be ready to switch from formerly traditional teaching practices to innovative learning/ teaching methods which boost students' motivation, involvement, critical thinking, and teacher/ student cooperation throughout the entire education process.

I would like to describe three innovative learning methods represented by three data processing systems used in logistics. The amount of information in logistics is vast and all of it has to be processed without delay, so the above data processing software has been developed for dealing with this challenge. Current economy needs specialists who are knowledgeable in data management systems and for that purpose our students are being taught to use these systems and apply them in practice. Innovative teaching methods require a classroom equipped with PC, internet access, software, and a printer.

„KLEVAS" (The Maple) is an advanced data processing tool without which effective functioning of logistics business is hardly possible. The system optimizes the following processes:

Management and control of transporting orders;

Assembling shipments for transportation by freight forwarding or personal means of transport;

Automated planning or transport routes and schedules;

Full account of expenditure for various kinds of transportation;

Wide range of customized printed documents for your business venture;

Vehicle occupation calendar.

Employment of data management systems in vocational training lessons

The principal purpose of „**Nano Warehouse**" software is to increase profitability by easy and uncomplicated means of total and itemized accounting of goods. It allows fast and easy assessment of warehouse inventory even for users without advanced IT or accounting skills. The software is applicable in small and medium size wholesale/ retail business ventures.

„Nano Warehouse" management software optimizes the following processes:

Creating an infinite number of warehouse storage facilities;

Easy creation of documentation for purchasing, sale, inventory, write-off, price reassessment, and draft invoices.

It can comprise unlimited lists of clients, goods, and groups of goods. The tagging system with different price levels allows to work out different prices for particular clients. Every item can be coded by unlimited number of barcodes.

Revision of operations, sales and purchasing history for an appointed period.

Generating and printing invoices fast and easy.

Reviewing various reports and monitoring the flow of goods and services.

Control of residuary goods in the warehouse and prompting procurement proceedings.

Management system "**Algors Logistics** " allows an efficient management of highly complicated shipments. The chain of logistics for one particular order can be comprised of:

Multi-modal transport: water, railway, road and air transport;

Consolidation of shipments in temporary storage and their redistribution;

Other legal and business operations applicable to a particular shipment.