

WebQuest

Techniques For Effective Teaching

Introduction

You have been appointed to the position of Director of Academic Improvement for the National Academy of Teachers Association. The position involves assessing teaching skills of current teachers and determining the necessary training and modifications needed to improve instruction in the classroom. There is concern that although most teachers are well versed in the material relevant to their content area, many are unfamiliar with techniques that can be used to enhance learning.

Task

Your assignment is to assess current teaching practices to determine what practices are being used in the classroom, and which ones are effective. This will involve surveying teachers about techniques that are in use and which techniques they feel help students learn the material. It will also be beneficial to interview students and determine what approaches or activities used in the classroom help them to understand the information. Once an assessment of the current situation has been conducted, an action plan can be developed to guide teachers in the incorporation of teaching techniques to facilitate learning.

1. What techniques are the teachers currently using in the classroom?
2. What techniques do the teachers feel are effective for the students?
3. What techniques do the students feel are effective?
4. What techniques are available for teachers to use in the classroom?
5. Are teachers familiar with and capable of using the techniques?

Process

The school board in each division will be responsible for collecting information to determine current practices and possible modifications that need to be made. The information will be gathered and compiled to determine overall deficiencies and specific needs to different areas. Once the information is compiled, improvement suggestions for each division will be developed. The following procedure will be helpful for gathering information to determine what modifications should be implemented.

1. Collect and analyze information on teaching techniques currently in use in the classroom. This could involve interviews with teachers and survey of teacher practices.

2. During the interviews, ask teachers which techniques they feel are most effective for relating information to students. This will involve examining general techniques as well as techniques specific to different topic areas.
3. Interview and survey students to determine which techniques they feel help them to comprehend, understand, and retain information. This will involve inquiring about which techniques students feel helped them to better understand the information being related.
4. Develop a list of tips, tricks, and techniques that can be used to facilitate learning in the classroom
5. Determine whether teachers are familiar with the recommended techniques and ascertain if training or additional information is necessary.

Resources

The following list of resources should be helpful in compiling information to help teachers understand how students process information.

An Introduction to Constructivism in ID

http://www.coe.uh.edu/insite/elec_pub/html1995/197.htm

Discusses the elements of Constructivist Theory and examines the nature of learning from the student's perspective. This information will be useful in helping teachers modify their lesson plans so that student learning is enhanced.

Instructional Design and Learning Theory

<http://www.usask.ca/education/coursework/802papers/mergel/brenda.htm>

Discusses and clarifies Behaviorism, Cognitivism, and Constructivism. This site also makes a distinction between the different learning theories. This will help teachers to better understand how students learn.

Educational Technology: The Re-Emergence of Constructivism

<http://isc.temple.edu/it520/articles/psy675work.htm>

This site defines Constructivism and its role in education. It also looks at Constructivism in ID and the field of Instructional Technology.

Instructional Design Models

http://carbon.cudenver.edu/~mryder/itl_data/idmodels.html

Site provides links to numerous sites on ID, ID Models, and Educational Technology Examines three major learning theories that look at how people process information.

Issues in ID

<http://www.sdavjr.davis.k12.ut.us/~brian/research/design.htm>

This site covers different views of learning and the implications for designing instructional content.

About Learning Theories

<http://www.funderstanding.com/theories1.html>

This site examines how people learn based on contributions from Constructivism, Behaviorism, and Neuroscience.

How People Learn: Brain, Mind, Experience, School

<http://bob.nap.edu/readingroom/books/howpeople1/notice.html>

This site takes a modern view of the principles of learning. It also looks at the learning environment and the steps to making changes in the learning environment.

Behaviorist Constructivism

<http://web.macam.ac.il/~izak/edd/edu/a/0775.html>

This site examines the similarities between 2 important learning theories: Behaviorism and Constructivism.

The following resources can be used for compiling a list of teaching techniques that can be used to enhance learning in the classroom.

Making Modifications in the Classroom

http://www.idonline.org/id_indepth.ing_techniques/mod_checklists.html

This site contains a collection of checklists for making changes in the classroom. It actually takes teacher through the process of classroom modification.

Effective Teaching Examples in History, Math, and Science

<http://bob.nap.edu/readingroom/books/howpeople1/ch7.html>

This site discusses how teachers can design effective learning environments. It also looks at teaching techniques for various subjects.

Creative Ideas, Tips, & Tricks

<http://www.teachingtechniques.com/>

This site contains a newsletter for teachers with tips and tricks that can be used in the classroom to enhance learning.

Advances in Research on Instruction

<http://olam.ed.asu.edu/barak/barak.html>

This site discusses cognitive strategies and learning, and presents effective techniques for use in the classroom.

Intercept Project

<http://www.ed.gov/pubs/eptw/eptw3/eptw31.html>

This site provides effective teaching techniques for at-risk children. It provides techniques for turning around the learning environment for students who are having academic problems.

Using Picture Books in Math Curriculum

<http://www.carolhurst.com/products/picturing.html>

This site presents strategies for teaching math in k-2nd grade. It advocates the use of pictures for teaching basic math skills.

K-12 Teaching Materials

<http://archives.math.utk.edu/k12.html>

This site contains a collection of materials for teaching math including lesson plans, software, contests, and competitions.

Second Nature: Education for Sustainability

http://www.secondnature.org/resource_center/resource_center.html

This site provides links to sites with innovative teaching methods that can be used in different subjects.

Strategies for Innovative Teaching

<http://www.br.cc.va.us/vcca/taylor.htm>

This site provides excellent suggestions for effective teaching and outlines numerous techniques that can be used in the classroom.

New Ways in Teaching Speaking

<http://ericae.net/ericdb/ed388059.htm>

This site provides class activities and techniques that can be used to help students develop better oral communication skills

WEB Resources

<http://www.mgc.peachnet.ecu/atyson/prodol.htm>

Site includes links to sites on tools for teaching including computer software, using the web, and distance education.

Innovative Teaching Methods

<http://www.as.yzu.edu/~biology/innov.htm>

This site provides innovative teaching techniques that are useful for teaching biology classes.

Intuit

<http://edi.eng.ohio-state.edu/intuit/>

This site provides a link to sites with various teaching techniques for teaching different subjects.

Evaluation

Each division will be assigned one grade and it will be based on the following criteria for a total of 100 points.

Quality of survey data gathered	10 points
Quality of interview data gathered	10 points
Quality of report compiled on current status	20 points
Research of teaching techniques	30 points
Quality of report compiled on modifications	20 points
Follow-up report of effective techniques adopted	10 points

Conclusion

At the conclusion of this project, each participant should have a better understanding of a variety of innovative techniques that can be used to facilitate learning in the classroom. Participants should also have a better understanding of how students process, understand, and retrieve information by investigating the different learning theories. Teachers will be able to use this information to improve the structure and format of their course content and thereby enabling students to improve their academic performance.

The entire process is focused on teaching teachers how to be better teachers so that students can be better learners. The teacher gains a better understanding of how the learning process works, and gains specific strategies, tools, and procedures for improving instruction in the classroom.