



Interactive Teaching Methods and Learning Style

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Abstract

Interactivity involves learning through communication, it produces a confrontation of ideas, opinions and arguments, and it creates learning situations centered on the children's availability and willingness to cooperate, on the mutual influence within classes. Learning based on active methods represents a new trend for teachers and a new way of life for students. By means of active-participatory methods, the student is able to work with his/her colleagues so as to ensure the smooth running of the training process. The interactive teaching methods and learning style. Is one of great interest, the proof being the concern of the people within the education.

Keywords: Methods, interactive approach, learning students, learning style

Introduction

These general models help us to classify teaching methods and simplify our discourse for conversing about them. We also group methods by their "family" affiliations. Some methods lend themselves to encouragement of social interaction in students. Other methods encourage information processing and some facilitate behavioral modification. Still others support intrapersonal and interpersonal development. Each of these families offers different approaches to teaching, respond to different objectives and goals, and yield different results in students. The prerequisite of progressivity education, in Jean Piaget's opinion, is to provide a diverse methodology based on the combination of the learning and independent work activities with the cooperation, group learning and interdependent work activities. From the multitude of teaching methods we focused on the interactive ones because they are the modern ways of stimulating learning and personal development since early ages, they are teaching tools that foster interchange of ideas, experiences, and knowledge.

Teaching Methods

General models and families of teaching methods are guides for designing educational activities, environments and experiences. They help to specify methods of teaching and patterns for these methods. Instructional strategies, or teaching methods, depend on a number of factors such as the developmental level of students, goals, intent and objectives of the teacher, content, and environment including time, physical setting and resources. Imagine a course that challenges teachers to meet a number of objectives. A single method cannot meet all of our goals nor can a single method accommodate all learning styles at once. For example, demonstrations or projects are effective for meeting some goals but ineffective for meeting others. So we need a toolbox of methods, not merely a single tool. In the most general terms, there are four or five different models of instructional strategies or teaching methods. Having spent years in schools, you will recognize each and probably have strong preferences for one or two models.

- Didactic- Direct teaching; Verbal and typically in the form of a lecture or presentation.
- Modeling- Direct teaching; Visual and typically in the form of demonstration and practice.
- Managerial- Indirect or Interactive teaching; Facilitation, individualization and group management.
- Dialogic- Indirect Interactive teaching; Socratic Technique of dialogue, questions and thought provocations.

In the Direct Instruction models, the teacher imparts knowledge or demonstrates a skill. In the Indirect Instruction models, the teacher sets up strategies, but does not teach directly; the students make meaning for themselves. In the Interactive Instruction models, the students interact with each other and with the information and materials; the teacher is organizer and facilitator. Experiential Learning models mean that the students experience and feel; they are actively involved. In Independent Study models, the students interact with the content more or less exclusive of external control of the teacher. Some theorists prefer to reduce these to three general methods: Tran's missive, Trans active and transformative teaching. Tran's missive teaching, or direct instruction, means that the teacher delivers status quo content via some method such as lecturing or demonstrating. Tran's active teaching, or indirect instruction, means that the teacher and students arrive at status quo content to be learned through transactions and dialogue. Transformative teaching, or a combination of direct and indirect instruction, means that the teacher and students reject status quo content and focus on a transformation of themselves or their world.

The following list provides definitions for a variety of different methods, including most of those listed above every method has advantages and disadvantages. For example, cooperative learning allows for the participation of everyone, but the groups often get side tracked. Role playing introduces a dramatic problem situation, but some students are too self-conscious to project themselves into the situation. Large group discussions pool ideas and experiences from the group, but a few students may dominate. Values clarification allows students to clarify their

values in a safe environment, but some students may not be honest in this environment. Projects allow for self-directed problem solving and creativity and take advantage of intrinsic purposes, but too much focus is placed on the product and too little on the process. There is pedagogy (art and science of teaching) to each method that is beyond the scope of this book. In the first chapter, we explained the pedagogy of demonstrations and presentations.

In the next chapter, we will address problem solving and design briefs. Chapters six and nine will deal with activities, projects and units. Think about your teaching methods and the range that you use. Practice a variety, if only to make your practice interesting.

1. Academic games or competition - Learners compete with each other one to-one or team to- team to determine which individual or group is superior at a given task such as "spelldowns," anagrams, technology trivia, Odyssey of the Mind, or project competition. Commercially available, academic computer games are also very popular.

2. Activity - a general teaching method (e.g., problem solving, design challenge, field trips, role playing) based on planned, purposeful involvement of students.

3. Brainstorming - order to generate creative ideas, learners are asked to withhold judgment or criticism and produce a very large number of ways to do something, such as resolve a problem. For example, learners may be asked to think of as many they can for eliminating world hunger. Once a large number of ideas have been generated, they are subjected to inspection regarding their feasibility.

4. Case study - A detailed analysis is made of some specific, usually compelling event or series of related events so that learners will better understand its nature and what might be done about it. For example, learners in a technology lab might investigate the wear and tear of skate boarding on public works. Another class might look at cases of digital technologies and privacy.

5. Centers of interest and displays - Collections and displays of materials are used to interest learners in themes or topics. For example, children may bring to school and display family belongings that reflect their ethnic heritage. The intention may be to interest the class in the notion of culture. Or, the teacher might arrange a display of different devices used in measurement to prompt interest in that topic.

6. Colloquia - A guest or guests are invited to class for the purpose of being interviewed in order to find out about the persons or activities in which they are involved. Thus, a guest musician might serve as a stimulus for arousing interest in music and musical performance.

7. Contract - Written agreements entered into by students and teachers which describe academic work to be accomplished at a particular level in a particular period of time such as a week or month.

8. Controversial Issues - An issues-based, teacher-directed method that focuses on controversies. Students are directed through a process that assists them in understanding how to deal with controversial and sensitive issues and clarifies these issues in a group context. Involves critical thinking and discourse analysis.

9. Cooperative learning - Learners are placed in groups of

four to six. Sometimes the groups are as diverse or heterogeneous as possible. In such cases, group members are often rewarded for the group's overall success. Student groups might be given a teacher presentation on division of fractions. They would then be given worksheets to complete. Team members would first help and then quiz one another. See also student team learning.

10. Culture jamming - A methods used to empower students to "speak back" to mass advertisements and media images that enforce stereotypes and select representations of individuals or groups. Empowers students to mock or "jam" images of popular culture.

11. Debate - A form of discussion whereby a few students present and contest varying points of view with regard to an issue. For example, students could take different positions and debate an issue: "Should rights to free speech on the internet be extended to students in schools?"

12. Debriefing - A method used to provide an environment or platform for the expression of feelings and transfer of knowledge following an experience. Debriefing may come at the hands of a tragic event or may be used more generally following an intentionally educational experience. Debriefing relies on the skills of the facilitator to reframe an experience or event to appropriately channel emotions and knowledge toward understanding and transformation.

13. Demonstration - A teaching method based predominantly on the modeling of knowledge and skills. A form of presentation whereby the teacher or learners show how something works or operates, or how something is done. For example, a teacher could demonstrate how to use a thesaurus, how to operate a power drill, how to scan an image, or what happens when oil is spilled on water as when an oil tanker leaks. Following that, students practice under teacher supervision. Finally, independent practice is done to the point of proficiency.

14. Direct instruction - A term used to describe explicit, step-by-step instruction directed by the teacher. The format or regimen advocated is demonstration, guided practice, and independent practice. Thus the teacher might teach a reading, mathematics, geography or technology concept or skill. Following that, students practice under teacher supervision. Finally, independent practice is done to the point of mastery.

15. Discovery or inquiry - Discovery learning is used when students are encouraged to derive their own understanding or meaning for something. For example, Students are asked to find out what insulation acts as the best barrier for cold or hot environments. Experiments that are not teacher demonstrations are part of discovery learning.

16. Discussion - Discussions occur when a group assembles to communicate with one another through speaking and listening about a topic or event of mutual interest. To illustrate, a group of learners convenes to discuss what it has learned about global warming.

17. Drill and practice - A form of independent study whereby, after the teacher explains a task, learners practice it. After Students are shown how to use Ohm's Law, they are asked to make calculations of current, resistance and voltage.

18. *Feedback* - A semi-formal mode of communicating to students constructive criticism regarding their performance during an activity

19. *Field observation, fieldwork, field trip* - Observations made or work carried on in a natural setting. Students visit the local museum of natural history to see displays about dinosaurs, or they begin and operate a small business to learn about production and marketing.

20. *Independent study or supervised study* - Described in this chapter, independent study occurs when learners are assigned a common task to be completed at their desk or as a home study assignment.

21. *Individualized instruction* - Any of a number of teaching maneuvers whereby teaching and learning are tailored to meet a learner's unique characteristics.

22. *Installation* - Students present material within a formal structure for displaying audio, multimedia or visual artifacts.

23. *Module* - A module is a self-contained and comprehensive instructional package, meaning that basically everything that the student needs is in the module. A form of individualized instruction whereby students use a self-contained package of learning activities that guides them to know or to be able to do something. Students might be given a module containing activities intended to help them understand good nutrition (Chapter 9).

24. *Mastery learning* - As a class, students are presented with information to be learned at a predetermined level of mastery. The class is tested and individuals who do not obtain high enough scores are retaught and retested. Those who passed undertake enrichment study while classmates catch up.

25. *Mixed-mode instruction* - A combination of "face-to-face" and on-line methods.

26. *On-line instruction and learning* - A self-directed and automated approach that utilizes hypermedia (internet browsers, etc.) for communication that generally provides independence, from the architectural constraints of classrooms.

27. *Performance* - Students act out through dance, drama, music or other expressive forms.

28. *Presentation and lecture* - Students listen to a person who talks about a topic. To illustrate, the teacher, or a guest speaker, tells the class all about the invention of the transistor.

29. *Problem* - A general teaching method and organization of curriculum and knowledge where students work purposefully toward a solution, synthesis or cause. Often called problem-based learning.

30. *Programmed and automated instruction* - A form of individualized instruction whereby information is learned in small, separate units either by way of reading programmed texts or using computer-based programs (See On-line instruction).

Controversial Issues

The controversial issues method deals with the processes of critical thinking and working through controversies. As the world gets smaller through the

globalization of culture, economics and media, controversial issues proliferate. As we grow more sensitive to the interdependence of cultures, individuals, races, religions and species, we assume more responsibility for sensitivity when dealing with issues. As technology is made more invasive and pervasive in our lives, it becomes more critical to make wise choices for what we create, buy or sell. Students at younger and younger ages are finding themselves entangled in webs of economics, politics, sex, technology and violence. The controversial issues method will not help us reduce the number of controversies in our lives but it does help us to deal with controversies critically and sensitively.

Controversial issues are quite topical and can typically be directly related to students' lives. Controversial issues are an essential part of the curriculum if the schools are to fulfill their mandate to prepare citizens for democratic participation. Controversies provide students and teachers with opportunities to comprehend, reflect, practice, and make commitments and act. They are crucial for helping students to develop their ethical and moral reasoning and to become critical thinkers. Controversial issues are likely to challenge students' beliefs, values and worldviews. This can be threatening and confusing, and can cause some students considerable emotional distress. Hence, if controversies are not properly addressed in the classroom, students often resist engaging with the issues because they are angry or feel threatened.

Class Discussion

Class discussion is one of the most common teaching methods and one of the most misunderstood. Systematically facilitated, it is also one of the most democratic of methods. Discussions can be facilitated by the teacher or by one of the students. It is an effective democratic method for dealing with a wide range of issues, be they classroom management or controversial issues. Students can prepare for components of the discussion by researching outside class, or arrive fresh to the discussion drawing upon their experiences. Discussions can take the form of responding to an issue, asking students what they think the most important issues to address might be; it could be in response to a demonstration or presentation, an assigned reading or field trip proposed the following guidelines for discussions and responding to students in general.

Cooperative Learning or Dyads

Cooperative learning refers to any pairing of between two and six students for learning. Cooperative environments generally foster greater learning and retention than larger modes of instruction (e.g., lectures). Cooperative groups can be formal study groups, informal discussion groups or task-oriented groups. Cooperation, creativity, responsibility, constructive feedback, conflict resolution skills and problem-solving skills are typically developed and necessary in small group environments. Students get to informally address their assignments. The teacher's task is to foster a positive emotional environment where group members experience a sense of responsibility and interdependence.

Cooperative learning provides an environment where those who may be reluctant to present their ideas in a large group may find some comfort and confidence. Dyads (two), triads (three) or small group discussions enable students to

cooperate in activities and projects. In the world of business,

design and production, small teams are formed and reassembled to form a larger, cohesive whole in the design and production of products. Hence, cooperative learning has very important implications for technology studies.

Learning Styles

If we get too comfortable, we stop growing. Students can put pressure on us to work within their comfort zone. Let's be kind about that. Kind enough to let them learn to be uncomfortable. Just as teachers will develop preferences for particular methods, students develop preferences for particular way of learning. We teachers, and our students, probably have preferred ways of perceiving and processing new information. These preferred ways are called learning styles. Typically, our students and we like to know why we are learning something, like to have time to practice, and time to integrate what we have learned into our lives. While schools may excel in delivering facts and overlook the importance of the three stages above, we cannot dismiss the fact that individuals have preferred ways of learning. Individuals have preferred ways of learning throughout the different stages of learning.

Learning styles address the ways we perceive and process. Perceiving relates to the way we notice the world and the way we see reality. Processing relates to the way we internalize an experience and make it our own. Some people prefer to perceive the world through concrete experience. These people perceive by sensing and feeling, and prefer to use intuition to solve the problems of a given task. They function well in unstructured situations. Other people prefer abstract conceptualization. They like to think things through, analyze and intellectualize. They function well in structured

situations. Some people prefer to process new information by active experimentation. They like to roll up their sleeve and immerse themselves in the task.

Conclusions

We conclude by emphasizing that the teacher's creative behavior is actually one of the factors that ensure the development of the students' creative potential. Teaching, as a creative process, implies the teacher as a mediator between the student and the world around him/her. He/she must not only organize the space and the activity, but also participate with the students in developing knowledge, stimulate, Learning Styles, teaching method, collaborative interaction among the students.

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