

(Inter)active learning and TEACHING methods

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1 From The Outcome to Selected Methods

From the previous lecture, a course should be clear a set of outcomes which orient teaching/learning activities (a.k.a teaching methods) and assessment methods. In other words, with a well definition of the course' outcomes as a plan, the teacher decides effective teaching and also assessment methods to satisfy the outcomes. Moreover, to optimise the teaching, the teacher can combine different methods together. Due to no bad or good methods, the idea is to stick on the plan to select suitable methods [1].

2 Teaching and Learning Activities - Teaching Methods

Following the study [1], there are four categorizes of teaching methods such as very eazy, eazy, average and demanding.

- Independent work: students work on assignment
- Stimulating writing assignments: a simulation for a short writing assignment (15 min)
- **Exercises:** students individually take exercises or by group work
- Supplementary reading: teacher gives more extra-material which is then discussed in the class
- Mnemonics in teaching: teacher utilizes keywords or a mental picture to show the idea to the students
- Mind map: the mind maps can be used to structure a lecture from which the students can have more activities such as discussion or group work
- Learning diary: the students write a learning diary during the4 course based on their experience and questions of the teacher.

- Assembling a knowledge base: the students indicate the gap between their current knowledge and knowledge of an assignment
- **Group work:** an assignment is indicated to a group of student with a time schedule before presentation/report/final discussion
- Collaborative learning: the students also work as a group, but having the same task to build a various view
- Cross-over groups: the teaching group is divided with disjoin and different task
- Learning cafe: the students are divided into small groups, each of which has a small table (freely write on the table) and a secretary (is chosen by members)
- Cumulative group: this a pair of students works together through a task/question
- Presentation walk: again the students join together as a group and present the output
- Teaching walk: the group of students go out to walk and discuss about the question
- Step-by-step discussion: a set of questions is go through by teaching group or small group
- Inquiry teaching: a way to seek answers for questions
- Teaching discussion: the teacher and student have the responsibility for the success of teaching discussion based on discussion of each opinion
- **Brainstorming:** the teaching group is separated and attempted to come up with ideas
- Discussion group: the group of students work together through an assignment in teaching session
- Reading circle: each group of students discusses on what they have read
- **Presentations:** the teacher prepares a presentation for the students
- Pretest: this is a test before the course starts
- Symposium: the idea is to ask a set of students make an introduction of the course based on their opinion/experience
- Seminar: the students create a seminar by group and present to others
- Panel discussion: a various fields are presented by participants
- Debate with argumentation: there are two opposing groups/individuals which are presented through the own views

- Fishbowl: a very small group is chosen for a discussion before a bigger discussion with others
- Problem-based learning: the idea is to introduce the students a set of problems which they can face
- Case teaching: the students are based on a specific case to process and analyse (individual or group) to form a conclusion
- **Project work:** the idea is to connect theoretical and practical knowledge. This can be done by individual or group
- Learning by doing: the teacher gives instructions to the students for practicing as laboratory assignments
- Roleplaying: the idea is to develop social and interaction skills
- Games: learning games are used to practice the knowledge
- Creative work: the idea is to aim student's capability to solve a new problem
- Drama pedagogy: this is to challenge the students to commit themselves to independent and group learning
- Dialogue with oneself: the teacher has a dialogue
- Participants teach: the students prepare a teaching session for teaching each others
- Interview: a pair of students form an interview to generate the thoughts
- Web-based learning: the idea is to utilize high-tech in teaching as e-learning to provide functions such as material storage, etc.

From the set of teaching methods above, I have utilized project work, presentation, brainstorming, group work and exercises in my course. As my opinion, my course is quite traditional one. Hence, we use tradition teaching methods which support the students 1) remember new terms, 2) understand procedures and 3) apply their experience, knowledge to the project work with a brainstorming in the beginning.

Although I am surprised with a tons of teaching methods here, it truly depends on the outcome of the course which can select fitted teaching methods. Another observation is about the pretest which is really good to understand the students, but it is so stress them. For example, I was stress in the first pretest from my first master class.

3 Assessment Methods

To evaluate and reflect the learning, assessment is utilized. However, there are many different assessment methods [1] to be selected from a following set:

- Participants teach: the students organize a lecture to teach each other based on a guideline of the teacher
- Assignment: an assignment can be returned by the students to show their reflection of the course. The assignment can be done by individual or group
- Mind map: the students can generate a tree/graph/map which show the connection of terms
- Demonstration event: the students have to present whatever they have done such as project, assignment, etc.
- Written assignments: the students answer the questions based on their knowledge which has been learned
- Portfolio, development portfolio: the students have to build a portfolio by themselves to display outputs, writings, etc. The portfolio can be formed by students' structure or by a default template.
- Project work: to simulate a real work, the project work is an important way to connect a theoretical knowledge to small real situation where the students can work individually or by a group
- Research projects: the idea is similar to project work, but the students have to plan, implement and conclude the project
- Learning diary: the students return a set of subjects and problems from their sides
- Discussions and interactive events: it is kind of discussion between teacher and student to clearly understand the students' situation
- Different types of examinations: exams are good way to evaluate the learning of students including traditional and other alternatives

Although I do not really like the traditional exam, it cannot be undeniable the usefulness (time and cost) to test a large number of students. However, the bad thing from traditional written exams is the memorial students who attempt to remember without understanding the concept. To avoid this issue, the exam should ask questions which require the students flexibly utilizing and applying the knowledge to solve questions.

One of my interesting exam is oral test or discussion and interactive events. I have certain chances to take this kind of exam. During this exam, I have to answer most questions related to the material of the whole course by the

teacher. From this, the teacher definitely understand how is the level of his/her students. Nevertheless, the bad thing from this exam is the time. For exam, I have taken this exam in my master for around 2 hours/exam. I also took an oral exam at 21pm since I have to wait for my turn to meet the professor as another example. Therefore, if the class more than 30 students, this kind of exam is really a big matter for the lecturer.

References

- [1] O. Hyppönen, S. Lindén, *et al.*, “Handbook for teachers: course structures, teaching methods and assessment,” 2009.