# A Practical Guide to Effective Post Secondary Teaching and Learning

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**This guide will provide practical and specific ideas to enhance the effectiveness of post secondary instruction. The ultimate outcome of these hints, suggestions, and possibilities is to make a positive difference in teaching and learning for both post secondary instructors and their students.**

# Overview and Introduction

## A Practical Guide to Effective Post Secondary Teaching and Learning

### Purpose of the Guide

The purpose of this guide is to provide practical and specific ideas that may enhance the effectiveness of post secondary instruction. The ultimate intended outcome of these hints, suggestions, and possibilities is to make a positive difference in teaching and learning for both post secondary instructors and their students.

The practical guide considers three chapter themes:

- 1. Building positive learning environments and interpersonal relationships
- 2. Effective planning and teaching strategies
- 3. Reflecting and analyzing teaching and learning for long term professional growth

Each chapter has specific topics with background information and practical suggestions that can be adapted for utilization. These topics can be identified and accessed from the table of contents for each of the themes. Many of the topics have excellent extensions and links through the internet. It is also important to note that each of the chapters and topics can be printed with this printable version of the website content.

### Conceptual Framework and Overview of the Guide

Given the intent of the guide, the logical question arises of what is effective post secondary teaching and learning? This classic question has been explored and debated over the centuries. Gross Davis (1993) synthesized some of the research on effective post secondary teaching and established some general themes in a succinct and clear way. These themes will form the conceptual framework for the guide.

THEMES: Effective post secondary instructors are adept at:

- 1. Creating a positive environment for learning. Much of effective teaching is founded on student perceptions of positive interpersonal relationships. Effective teachers: establish and maintain positive rapport with students, are attentive and responsive to their needs, communicate expectations clearly, actively engage students with diverse ways of learning, give appropriate feedback on student work, and demonstrate a genuine caring for student physical and emotional well being. In short, it is what and how students perceive they are being treated as a major motivator for their learning and opinion on the quality of instruction they have received.

- 2. Organizing and teaching content to best meet most student needs. A teacher must know their teaching material and discipline. Teacher knowledge and experience forms the essence of post secondary instruction. It is however more imperative to understand what and how a student would come to understand the content or concepts, what questions or concerns students might have, to be able to explain or model topics/concepts/skills in easy to understand ways, to identify reasonable expectations, select appropriate teaching methods and material, relate topics to real life, and find ways to assess their learning in meaningful and practical ways. In short, think and learn as if you were the student in your own class!

- 3. Reflecting and evaluating teaching and willingly adapting their teaching to best meet student needs. Laura Upton, an American educator, has postulated that we do *not learn to teach but rather we learn from our teaching*. There is so much to learn as a post secondary teacher and it is ones caring, passion, and courage to change that makes it more rewarding for both the teacher and the learner. One needs to systematically consider what students are doing, why they are dong it, how it could be done better. Open and honest communication with students, specific feedback, and an open minded attitude for change are paramount in this reflection, analysis, and adaptation.

***A teacher is a very special person who uses their creativity and inquiring mind to encourage others to think, dream, learn, and do.***

**- Beverly Conklin**

One might think back to their own post secondary days to remember what professors or instructors made the biggest impact on their learning and maybe their lives. The memories likely include: their interpersonal skills and relationships, their engaging ways of teaching, and their ability and willingness to adapt and change to best meet your needs. Given the overwhelming wealth of ideas and suggestions found in researching this guide, there are sure to be a few ideas that will make a positive difference in both your own and your students learning.

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# Creating a Positive Learning Environment

## Chapter 1

**Effective teaching is often based on student perceptions of positive interpersonal relationships, both with their instructor and peers.**

**Effective teachers:**

- **establish and maintain positive rapport with students**
- **are attentive and responsive to their needs**
- **communicate expectations clearly**
- **actively engage students with diverse ways of learning**
- **give appropriate feedback on student work**
- **demonstrate a genuine caring for student physical and emotional well being.**

**In short, it is what and how students perceive they are being treated as a major motivator for their learning and opinion on the quality of instruction they have received**

### 1A. What do most students expect from you?

**"Whoever our students may be, whatever the subject we teach, ultimately we teach who we are."**

**- Parker Palmer (educator and philosopher)**

**The University of Manitoba (2007) faculty handbook presented a very substantive overview of many ideas on effective post secondary teaching. The introduction to this handbook included a list of what students value and expect from a professor/instructor.**

**With the permission of teaching excellence award winner Richard Leblanc, the University of Manitoba Handbook (2007) summarized what he believed to be the essence of "good teaching" at the post secondary level.**

**The University of Iowa provided another succinct list of <u>what students view as effective teaching</u>:**

**<u>Clarity</u>**

- **They communicate clearly about course objectives, content and testing, making sure to:**
  - **Provide a rationale for learning particular material**
  - **Adapt instruction to their student's level of knowledge and skill**

**<u>Review</u>**

- **They review prerequisite knowledge as the foundation for new knowledge**

**<u>Planning</u>**

- **They are familiar with current research and:**
  - **Develop outlines for each class**
  - **Begin with information about their students' preparation and skills**
  - **Prepare for contingencies and "opportune moments" for teaching**

**<u>Feedback</u>**

- **They ask questions requiring students to reflect, evaluate, connect ideas while:**
  - **Providing clear and specific responses to student comments**
  - **Following a correct response to a question with another question**

**<u>Transfer of Learning</u>**

- **They provide adequate opportunity for mastery of tasks by:**
  - **Making sure that principles are understood before asking students to apply them**
  - **Offering a wide variety of examples**

**<u>Evaluation</u>**

- **They solicit formal and informal responses from students during the semester and:**
  - **Use this information to improve their courses as they are being taught**
  - **Also invite observation and suggestions from colleagues**

**"Teaching that impacts is not head-to-head, but heart-to-heart."**

**- Howard G. Hendricks**

## 1B. How can I know about students/course?

"To be a teacher in the right sense is to be a learner. Instruction begins when you, the teacher, learn from the learners, put yourself in their place so that you may understand what they understand and how they understand it."

- Soren Kierkegaard

It is difficult to plan for learning if you do not know your students or the course. This is especially challenging for new instructors, new courses, or new situations. Some suggested hints for knowing about your students or the course prior to planning are:

- Communicate with instructors who have taught in the program, or the course, or the students. Be specific and prepared to get information on the nature of the students, backgrounds they have, teaching ideas and strategies that have worked or not, and rewards and challenges of teaching the course/students.

- Study a class list and learn student names. Many institutions have student pictures through registration along with student background (majors/minors). Beyond the planning these pictures can be used for name memorization. Challenge yourself to connect all student names in the course to their pictures. It really helps when you meet and greet them at the door in the first classes. If there are no pictures you can take pictures of groups of students in the first class. The memory connection can be done with confidence (never ever say I have trouble remembering names!), diligence, and practice. Memory course techniques might help.

- Know student names:

Getting Results: Learning Your Students' Names

Learning your students' names is the first step in knowing who they are. Calling students by name communicates respect, helps them feel recognized as individuals, and helps to draw out and include shy students in class discussions. Here are a few ideas for getting to know your students' names.

- Ask students to wear nametags, or have them write their first names on the front and back of tented index cards on their desktops.
- Take a few moments and have the students introduce themselves to their neighbors. Then have each student introduce a neighbor to the class, along with one interesting fact about him or her.
- Take a Polaroid or digital camera to class and snap a photo of each student. Write the students' names on the photos and keep them with you for reference.
- Have the students create "business cards"—4x6-inch index cards with specific information about themselves in each corner of the card—as individuals and as learners (i.e., brief bio info, something they know a lot about, some of their strengths as learners, etc.)—and use these to make introductions in small groups. Afterwards, you may collect them to learn more about your students.

Other suggested links for name memory are:

- How to Remember Names - Cynthia Green, psychologist and author of *Total Memory Workout* talks about remembering names in an interview on Howdini.com.
- How to Remember Names - Rob Brown shares the acronym "ALPHA."
- How to Remember People's Names - Learn how to lock people's names into your brain with these tricks from this humourous video.

This knowing of names is an amazing starter for relationship building and making a good first impression. In the author's experience, students from 10-20 years past tell you how impressed they were by how their names were remembered in the first class. Very powerful!

- Be sensitive to the diversity of learners and learning styles that will be in the class/course.

Getting Results: Creating a Community of Learners

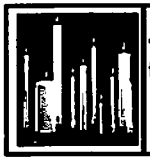
Creating a community of learners is the foundation of effective teaching. You may be passionate about the subject you teach, plan relevant and interesting activities, and deliver fascinating information—but none of this matters if students are afraid to speak up in class, feel that they can't contribute, and don't get the support and encouragement they need to learn.

Getting to know students on a personal level is very much appreciated and valued by students.

- Have students tell you about themselves in a survey to start the first class. Some of the items in the survey might be: name, background in discipline, best and worst memories about discipline, hopes and aspirations for the course, any special needs or concerns they have. As students complete the survey it is a fabulous time to review their names on the survey as you memorize them.

- Students would also like to learn about you and your expectations. Some of the techniques that can be used are: show and tell with pictures of yourself and your work and your family, stories about what you have done in your life, hobbies and interests. You also need to share your background and experiences that qualify you to teach the course HINT: It is easy to put together a PowerPoint slide presentation with pictures and music to match the timeline of pictures.

## 1C. Positive first impressions - what can I do the first class?



"We must view people not as empty bottles to be filled, but as candles to be lit."

- Robert H. Shaffer

The first class sets the tone for the term. Students, rightly or wrongly, form impressions that are lasting on this day. It is a very important day. Instructors and students are curious and nervous in anticipation. A relaxed and open learning environment often makes for better learning and more joy in teaching and learning. The following suggestions are presented in an article by Dr. Lee Fink (edited by Bernie Krynowsky).

What to Do on the First Day of Class - Lee Fink, University of Oklahoma

What can we do on the first day of class? What should we do? One common answer is simply to start lecturing: "This is day one, here is lecture one, away we go." Another possibility is: "Here is the syllabus, go buy your books and we will see you at the next scheduled class period." Neither of these two options seems desirable. But what are some other possibilities? Several years ago a group of professors at the University of Oklahoma visited each other on the first day of class and then discussed what they saw each other doing. The discussion quickly went from what they observed, to "What might be done?" They eventually identified some possibilities, as described below. A teacher should not feel obliged to do all of these, but doing even one or several of them on the first day (or during the first week) would seem to accomplish a number of important tasks for getting a class started in the right way.

1. Invite students to participate. This can be done in a variety of ways:

- having them introduce themselves to each other
- allowing them to think and write silently about what they think the course will offer them
- having a whole-class or a small-group discussion of their expectations and challenges

Let students know right from the outset that they will be active participants.

2. Establish your own credibility. Sometimes this happens automatically, but at other times students need to know about the teacher's academic qualifications, prior work experience, travel experience, or research and publications in an area. Having this knowledge can help students gain confidence that the "teacher knows what she or he is talking about."

3. Build Rapport. Almost any class will be more enjoyable for both the teacher and the students if they know something about each other. This exchange can be started with mutual introductions, sharing some background information, etc. Reveal something about yourself. Sometimes students can relate to the teacher more productively if they can see him or her as a human being, i.e., as something more than just an authority figure or subject matter expert. Sharing personal stories and being able to laugh at yourself can help this process.

4. Identify the value and importance of the subject. Not all students come to all classes with a clear idea of why this subject is important. The teacher may need to help them understand the significance of the course. The sooner this is done, the sooner the students will be ready to invest time and energy in the task of learning the subject.

5. Provide administrative information. This often takes the form of going through the syllabus, presuming you have a syllabus with this information in it; what reading material the students will need; what kind of homework will be involved; what your office hours are; where your office is located; how the class grade will be determined; what your policies are regarding attendance, late papers, make-up exams, etc. Try to make this an active event (questions, discussions, predicting) vs. reading the outline to the students.

6. Set expectations. This can involve such things as what the teacher considers appropriate amounts of study time and homework for the class, the importance of turning homework in on time, expectations about in-class behavior, how the teacher wants to relate to students, and how much interaction among students is desired. The first day also offers an opportunity to find out what expectations the students have of the teacher and of the class.

7. Establish the "climate" for the class. Different teachers prefer different classroom climates: intense, relaxed, formal, personal, humorous, serious, etc. Whatever climate you want, you should try to establish this early and set the tone for the semester.

8. Introduce the subject matter. Generally this introduction will be facilitated by starting with an overview of the subject. It is a message sent to students that there is a task orientation and important learning to begin – even in the first class!

What is it? What are the parts of the subject? How is it connected to other kinds of knowledge/skills? Why is this knowledge/skill important?

Final Note: Remember that it is imperative that you do on the first day whatever it is you want the class to do the rest of the semester. Keep them active, engaged and relaxed!

First Day Ice Breakers
Nelson (2003), offered some ideas on getting to know your student "Icebreakers" for community building and subject matter.

Social Icebreakers: "Getting to Know You"

- Simple Self-Introductions
  - Students take turns introducing themselves to the class.
- Three-Step Instructions
  - Students share information with a neighbour, who then introduces to the class.
- Class Survey
  - General questions are asked so a broad picture of the class is formed.
- Scavenger Hunt/People Search
  - Students move around the classroom to find others who fit into certain categories.
- "The Circles of _____."
  - Students create a web of groups with which they identify, starting with their name in the central circle.

Subject-Matter Icebreakers

- Background Knowledge Probe, Focused Listing, and Self-Confidence Surveys
  - These are meant to provide background information on students as well as an orientation to course matter.
- Problem-Posing
  - Students pose problems that may occur in the course. This allows you to facilitate discussion with the class.
- Common Sense Inventory
  - Ease students into the subject matter by providing statements that they have to deem "true" or "false."
- Drawing Class to a Close
  - Have students record their anonymous reactions to the first day of class.

First Day Success

The University of Waterloo teaching tips guide has some suggestions for:

- Surviving the first day of class
- Motivating your students

## 1D. What are some other hints/ideas for a "good start?"

"We should not be speaking to, but with; that is second nature to any good teacher."

- Noam Chomsky

Gross Davis (1993) synthesized a few more possible suggestions for the first classes. Some of these were:

- Build community with interactive opportunities with active involvement and communication such as personal introductions, generating questions about the course or instructor, and sharing or generating ideas about course content.
- Have student complete an introductory card to share their backgrounds, passions, concerns, hopes, fears, and hobbies/interests.
- Learn and use student names. Consider name cards for the first 2 classes. Play name games (i.e. Alliteration Actions or Yarn Connections) and icebreakers (refer to Nelson's Icebreakers)
- Encourage e-mail or discussion/support groups (buddies) to assist with communication, community building and logistical support in case a lesson was missed. The University of Waterloo Center for Teaching excellence has some suggestions for timesavers for electronic communication.
- Provide a clear and specific overview of expectations. Clear expectations, assignments, and criteria are a huge deal for students. Provide a course visual overview of key concepts and their order (big picture).

Povlacs offered "101 things you can do in the first three weeks of class." Some of these ideas, adapted by the author, follow:

- Introduce yourself and greet students at the door (by name as you learn them).
- Start/end classes on time (sets a pattern of expectation).
- Find out about your students with a survey (i.e. Sample Survey).
- Tell students about yourself and your philosophy of teaching/life.
- Remind yourself that students "feed or starve" off your enthusiasm and energy.
- In smaller classes, have students interview each other by finding out about their interests, passions, and past life experiences. Student pairs could introduce one of the new classmates (including you) to the class, sharing one special quality/experience the classmate has had.
- Have a visual overview of the day's lesson with key ideas, concepts, events outlines.
- Mingle with students as much as possible before and after class. Make opportunities to move about the class and interact with students on both the content and personal level.

- Have some humour or interest point (puzzle question, picture, cartoon, story, current event) to start every class.
- Consider getting a few questions about the topic at the beginning of class and try to answer them at the end – could ask for a written analysis/question/summary page as a "ticket out."
- Break up presentations with humorous stories, related current events, and physical stretch - use variety in the presentation style! (i.e. media, models, group work, individual work, lecture)
- Provide clear guidelines and expectations when it comes to any assignments - samples help reduce confusion. It is amazing how the same message and criteria get misinterpreted!

Other Logistics and Suggestions for a Good Start:

The University of Waterloo Center for Teaching Excellence provided other suggestions for the logistics of course set up and a good start. These included:

- Encouraging Academic Integrity
- Holding Office Hours
- Timesavers for Electronic Communication
- Laptops in the Classroom - Vice or Virtue?

Smith (2008), in the art of teaching video, provided us with some specific ways to building personal relationships.

A major reason for creating a positive learning environment is that those lasting impressions of you and the course are formed quickly by students. It establishes your reputation and as Mark Twain suggested:

"You can establish a reputation as an early riser and then safely get up at noon."

- Mark Twain

## 1E. How can I effectively deal with student "challenges?"

"Student incivility is often a symptom (e.g. poor presentation, boring activities, lack of enthusiasm, and lack of clarity...) rather than a problem."

- Bernie Krynowsky

The reality of post secondary teaching is that there are always inevitable challenging situations that arise. These challenges are part of what makes the work interesting, rewarding, and occasionally stressful.

Nelson (2003), based on her research, provided some insights into common incivilities and ways to prevent and deal with them.

- Surveyed students considered the following student behaviours inappropriate: talking in class, arriving late and leaving early, wasting class time with domination of discussions or irrelevant questions, showing disrespect through distracting mannerisms and poor manners (e.g. noisy, fidgeting).

- Surveyed instructors listed main distractions as: acting bored or apathetic (eye rolling, sleeping, eating, not paying attention), missing classes, individuals dominating discussions, students belittling or being sarcastic towards others, using computer/cell phone/pager in class, inappropriate e-mails, vulgar or rude comments, challenging the instructor's credibility in class.

Nelson (2003) offers suggestions for these situations, but prior to, offers preventative measures. Obviously prevention is preferred!

Preventing classroom incivilities

Possibly the biggest prevention of all is working toward positive interpersonal relationships. In addition to relationship building, the underpinnings of prevention revolve around perceptions that you are organized, confident, credible, and will follow up with clear policies and procedures. The University of Waterloo Teaching center provides some suggestion on how to manage your classes by:

- Creating an inclusive environment
- Effective communication - barriers and strategies
- Conflict management for instructors

Some of the specific suggestions from Nelson (2003) included:

- Considering appearance, movement, and presence. These are a huge factor. You may need to act; however, students are watching you for your perceived level of competence and confidence.

- Setting clear expectations, policies and procedures. You need to be clear and firm on what you expect. An effective course syllabus is a good starting point. Some of the shared expectations might include the importance of, or polices regarding: on time arrivals and departures, participation levels, missed assignments, and phone/computer use in class. Use positive language. For example, "you are expected to..." versus "you will be penalized if...". Moreover, you can ask for and acknowledge student input into some of the minor policies and procedures (e.g. cell phones going off, talking in class). Ownership is powerful, so involve students.

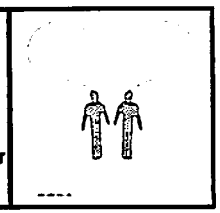
- Modeling appropriate behaviours yourself. If you are rude, sarcastic, or late for class, what do you expect from students? There is huge power in your modeling!

- Practising being an engaging and interesting presenter. This is easier said than done. Aristotle in his evaluations of teaching not only considered content and arrangement (organization), but also style (sentence structure, delivery [vocal and physical performance], and memory [freedom from notes]). Enthusiasm is contagious! Times may not have changed? More on this topic is presented in getting feedback from peers. Check out the instructor lesson review feedback form which focuses on lesson implementation.

- Having an engaging and interesting variety of learning activities. (e.g. discussion, questioning, small group work, audio visual support, challenges, variety of teaching strategies, talk less and have students do more, and humour/anecdotes/stories).

Robinson (2007), in the University of Manitoba Handbook, shared some practical alternatives for motivating students and managing large classes so as to reduce incivilities.

Responding to Incivilities

| | |
|---|---|
| "The real art of communication is not only to say the right thing in the right place, but also to leave unsaid the wrong thing at the tempting moment."<br><br>- E-mail humour |  |

Nelson (2003) provided some suggestions to deal with a variety of incivilities. As expected, it is easy to give advice; however, trial and error rules. Some general guidelines for incivilities are: remaining calm and in control, responding to issues or challenges immediately rather than letting them slide, and meeting with students in a discreet way to discuss issues.

- Talking in class:
  Try pausing, moving closer, looking disappointed, or a non-verbal cue such as a finger to the mouth. Speak to the student/students quietly, ask to meet with the student after class, or discretely ask the student/student to change their seating for the next class. Avoid public berating.

- Packing up early arriving late:
  Ask students to be courteous to others, pause as someone enters/leaves, have an area for latecomers, have routines for closing the lesson (e.g. short quiz, writing task, reading or assignment reviews), and/or speak to chronic cases out of class about how and why their behaviour is not professional.

- Dominating discussions:
  Use a system of hands up, communicate to individuals outside of class about their positive contributions but the need for limits, don't call on the student, yet thank them for volunteering, stop the student with a paraphrase and redirection to others in class, or ask the student to meet with you later to discuss the question/issue. Questions previously asked and answered can be deferred with a question of whether this question has been asked, and/or asking the student to meet with you at the break or end of class for clarification or assistance. Avoid getting trapped by questioners looking for an argument - you can invite the student to meet with you later to discuss the question or issue.

- Computer cell phone use in class:
  Explain why this is an issue for a classroom at the start of the course. Moving about the room is a good way to be proximal and aware, providing less rather than more time to complete in class work, asking to see student work done before leaving class, collecting cell phones/pagers on entry, or asking everyone to turn off their phones as part of a class routine. You might consider a technology collection box on entry if this continues to be a challenge.

- Missing Classes/Assignments:
  Firstly, make the class worth coming to with active engagement. Other ideas include: knowing student names, doing a quick checklist on attendance, asking students if in a professional programme to let you know by e mail that they have missed or may miss a class, encouraging accountability in every lesson with a write or short quiz at the end (for marks), having comprehensive exams that cover content from every class, and/or avoiding putting all of your lesson materials online as it makes it easy for students not to come. For missing/late assignments, have a policy in your syllabus (e.g. late marks) such as having a private discussion about the assignment and setting up a contract for completion, having a maximum grade for late assignments, or allowing students to pass the course only when all assignments are completed to a post secondary level.

- General Disrespect for Others:
  This behaviour is often attention-seeking or reflective of personal challenges. Communicating with the student outside of class while being empathetic, asking about the possible reasons for the behaviours, asking for solutions from the student, appealing to the sense of need for cooperation, appealing to the sense that they are likely annoying/disrupting other students, and/or possible referencing to

counseling services.

Callaghan (2007), in the University of Manitoba handbook, provided suggestions for remediation of incivilities. These constructive suggestions are based on some unfortunate occasional negative behaviour that arises.

Marincovich (2007), in the University of Manitoba handbook, provided some insight into student incivility reduction to help us better deal with some situations of "grade grubbing," "special needs," and the "discouraged student."

The University of Waterloo Center for Teaching Excellence has some suggestions for conflict management for instructors.

Smith and Usick (2007), in the University of Manitoba Handbook, highlight the new era of plagiarism - its causes and prevention.

Plagiarism situations are very stressful for all involved and can often be avoided with clear communication and expectations.

## 1F. What are some ethical principles that guide my instruction and professional/interpersonal relationships?

"Watch your thoughts; they become words. Watch your words; they become actions. Watch your actions; they become habits. Watch your habits; they become character. Watch your character, it becomes your destiny."

- Frank Outlaw

The summation of creating a positive learning environment for positive relationships fits in with the major expectation that post secondary instructors are aware of and follow ethical principles which are professional guidelines, ideals, and expectations that need to be followed. Murray et. al (1996) provides an excellent synthesis and description of these principles.

Briefly these principles are:

- Content Competence: A university teacher maintains a high level of subject matter knowledge and ensures that course content is current, accurate, representative, and appropriate to the position of the course within the student's program of studies.
- Pedagogical Competence: A pedagogically competent teacher communicates the objectives of the course to students, is aware of alternative instructional methods or strategies, and selects methods of instruction that, according to research evidence (including personal or self-reflective research), are effective in helping students to achieve the course objectives.
- Dealing with Sensitive Topics: Topics that students are likely to find sensitive or discomforting are dealt with in an open, honest, and positive way.
- Student Development: The overriding responsibility of the teacher is to contribute to the intellectual development of the student, at least in the context of the teacher's own area of expertise, and to avoid actions such as exploitation and discrimination that detract from student development.
- Dual Relationships with Students: To avoid conflict of interest, a teacher does not enter into dual-role relationships with students that are likely to detract from student development or lead to actual or perceived favoritism on the part of the teacher.
- Confidentiality: Student grades, attendance records, and private communications are treated as confidential materials, and are released only with student consent, or for legitimate academic purposes, or if there are reasonable grounds for believing that releasing such information will be beneficial to the student or will prevent harm to others.
- Respect for Colleagues: A university teacher respects the dignity of her or his colleagues and works cooperatively with colleagues in the interest of fostering student development.
- Valid Assessment of Students: Given the importance of assessment of student performance in university teaching and in students' lives and careers, instructors are responsible for taking adequate steps to ensure that assessment of students is valid, open, fair, and congruent with course objectives.
- Respect for Institution: In the interests of student development, a university teacher is aware of and respects the educational goals, policies, and standards of the institution in which he or she teaches.

A final thought from Gandhi on values we might reinforce in order to make a positive difference in the realm of teaching and learning. He suggested that we avoid:

"Wealth without work; pleasure without conscience; knowledge without character; commerce without morality; science without humanity; worship without sacrifice; politics without principles."

- Gandhi

# Organizing and Teaching to Meet Student Needs

## Chapter 2

An effective educator must know their teaching material and discipline. Teacher knowledge and experience forms the essence of post secondary instruction. It is however more imperative to plan for what and how a student would come to understand the content or concepts, what questions or concerns students might have, to be able to explain or model topics/concepts/skills in easy to understand ways, to identify reasonable expectations, select appropriate teaching methods and material, relate topics to real life, and find ways to assess their learning in meaningful and practical ways.

## 2A. What are some key reminders about effective teaching and motivating students?

"A teacher as scholar is important, the teacher as a person is crucial, the teacher as an effective communicator is indispensible."

- J. Jordan

The University of Manitoba Handbook (2007), provides an overview of excellent teaching attributes from a student perspective.

Effective teaching is intimately connected to motivating students in our courses. Cameron (2007), in the University of Manitoba handbook, reminds us of what we can do to assist students to achieve at a high level.

The University of Waterloo, as part of their teaching center teaching tips, provides an outstanding overview for motivating students and effective communication which are common traits in inspirational teaching.

- Effective Communication: Barriers and Strategies
- Receiving and Giving Effective Feedback

## 2B. How can I prepare an effective course outline/syllabus?


"Failing to prepare is preparing to fail."

- John Wood

Gross Davis (1993), with edits by Krynowsky (2010), provided some helpful hints on revising or preparing for a course. Her ideas revolved around what to teach, how to teach, and how to ensure learning has taken place.

General Advice - Effective Course Outlines

- Communicate with other instructors of the same or similar course. - Examine course outlines and ask for permission to modify them if they are adaptable. Save time and energy with less "wheel invention."

- If revising a course, gather all materials related to the course you have taught, and make some choices on what needs to be kept/revised/ignored. - Remember to consider student feedback and your own honest self assessment. A journal or notes after each lesson help you remember what to change. Changes to a course are easier to plan soon after the course or lesson rather than the next term.

- Consider the main goals for the course from a student perspective. - Think about the big picture. What do students really need to know or do vs. the details of content? Record your idea. Be prepared to present a strong case to students as to why they might care about the course content or topics.

- Make a list of possible topics or lessons and their order. - Make some choices by culling topics given that student time and energy are not infinite. The list might be grouped into essential and nice to have. The essentials are just that and more content is generally not better for students. In short, deeper learning is better than surface learning.

- Create a list of more specific learning outcomes/objectives and ways you might know if they were achieved. - Create meaningful assessments or assignments that do not create instructor marking or student burnout. Again, more is not better.

- Prepare a fancy visual or graphic organizer "big picture" flow of concepts/topics. - This will not only assist the instructor, but also the students. This visual demonstrates your preparation to your students who expect it. This visual can be used repeatedly during the term to assist in connecting lessons. The author shows the "big picture" visual almost every lesson! Students need to remain connected to the course, although most important to you, is only one of many for students.

Specific Advice for Effective Course Outline Preparation and Sharing

These hints are coordinated or linked with a positive example of a course outline.

- Provide basic information for communication such as office location, electronic contacts, web page support, and office hours. It is easy to post this information on the university online server or departmental sites.

- Include an overview of course or calendar description. - Be clear on the learning outcomes and if possible, connect them to the programme outcomes or standards. "Getting Results" (2007) provides specific suggestions on writing clear and specific outcomes:
  - Writing outcome statements
  - Action-oriented outcomes
  - Creating assessment tasks
  - Planning learning experiences

- List assignments/requirements/criteria for course completion similar to the attached example of assignment criteria. Clearly define the assignments and the criteria by which they will be judged. Criteria are important to students who generally do not like surprises, uncertainty, or changes midstream. These criteria not only communicate a standard, but also demonstrate your organization and clear expectations. It is the "contract" for both you and students. Students and instructors generally do not like the awkward situation of explaining why a certain mark/grade was earned.

- Have some samples of well done assignments for show and tell. This has some pros such as having a clear standard with amazing models. Some cons are intimidation for some, replication of what has been done like a recipe, and a decrease in creativity and independent problem solving. A vast majority of students favor models to be shown.

*Note: Students often judge the course on the quality and quantity of assignments/requirements. It is often the first page looked at in syllabus review! Their perceptions that assignments are "hoops," "not relevant" or "worse" are counterproductive to meaningful teaching and learning. It is important for an instructor to motivate and explain clearly the rationales for assignments. Spend time and energy on motivation and do not assume that students will be self motivated.

- Consider giving a choice in assignment as related to your course. An excellent example of an independent project model is included in the teaching strategies section. This assignment can be used in just about any course or discipline or department. The author has found this model to reduce whining about "irrelevant or useless" assignments. Student products with this approach often are at a "publication quality."

- Identify resources and support materials that will be part of lesson delivery (notes, texts, online tech support, office hours). Determine the use of texts and resources.

Most students hate it when expensive books are not used in some meaningful way! Order the texts/online materials. Many publishers offer custom courseware packages or one can create their own package with copyright approval through bookstores.

- Communicate course policies in outline which is the mutual contract. These polices need to be consistent with the department and university. The main policies revolve around: regular attendance, missing parts of assignments, unmet assignment standards, make up exams, late work, and grading scales. Consider that attendance or participation likely does not reflect student learning so perhaps it is not a valid evaluation.
    - *Note: Students appreciate lesson by lesson overviews with the understanding that there may be adjustments according to student needs.

- Avoid course outline pick up on first class entry. It is a distraction because human nature is that most of us look at and are distracted by what is put in front of us. Provide students with the big picture of the course and why they might care about it prior to perusal.

Other resources for course outline/syllabus preparation

The University of Waterloo Center for Teaching Excellence provides a synthesis of practical hints in syllabus preparation. It includes:

- Course design - questions to consider
- Creating course outlines
- Writing course outcomes

A brief overview of key components of a course outline is provided by Alverno & Randall (1998). Slatery and Carlson (2007), in the University of Manitoba Handbook, have done considerable research into current best practices in syllabus preparation with inclusion of student motivation, structure and function, and grading practice.

Please note that an entire sample course outline is linked to illustrate some of the previous planning suggestions.

## 2C. How do I plan for the "big picture" of the course?

"To be a teacher in the right sense is to be a learner. Instruction begins when you, the teacher learn from the learners, put yourself in their place so that you may understand when they understand and how they understand."

- Soren Kierkegaard

Given the many possibilities of learning activities a professional educator must make choices on best practice to meet student needs while honoring with integrity course and programme outcomes. As a generalization, (all generalizations are false), many instructors find that there is more that could be taught and learned but not enough course, and or student time and energy. Hence, one of the main planning decisions for instructors revolves around: what are the priorities for learning outcomes? What are ways would could assess and evaluate these outcomes?, What are the key concepts (knowledge, skills, attitudes) and what order should they be presented in?

There are a multitude of planning models and learning styles that influence how one teaches and learns. There are some general key concepts that influence planning across the models.

- Planning styles are influenced by the instructors learning style and we often teach in ways we like to learn
- Planning is often not a linear process. Many individuals consider programme outcomes, learning outcomes , relevant activities and strategies, and assessment and evaluation options and move back and forth among the connections as they plot the lesson by lesson flow of knowledge, skills, and desired attitudes.
- Experience alters the planning in terms of how much is written down and how much is intrinsic

As was previously mentioned a visual overview of key course concepts can be used in nearly every lesson to assist students in linking the key knowledge, skills, and attitudes to be validated or acquired.

The University of Waterloo Center for Teaching Excellence provides a synthesis of practical hints in planning for the "big picture."

- Course design - planning a class
- Course design - heuristic
- Course design - questions to answer

"It is good to have an end to journey toward, but it is the journey that matters in the end."

- Ursula Le Guin

## 2D. How do I plan for meaningful assignments, assessment, and evaluation?

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|---|---|
| | "Paige quote ."<br><br>- Paige quote |

Once again there are many books, philosophies, and models for assessment and evaluation practice. A common thread in effective planning, teaching, assessment, and evaluation is based on identifying the critical knowledge, skills and attitudes your students will achieve at the end of a lesson or course (learning outcomes). One model, an adaptation from Wiggins & McTighe (1998) "end in mind" design, is illustrated below in Figure 1.

| STAGES | EXAMPLES |
|---|---|
| Identify desired end results | (e.g. key concepts, applications , course/program outcomes, specific knowledge, skills, attitudes) |
| Determine assessments | (e.g. assessment criteria (expectations) and evidence such as portfolios, tests, etc.) |
| Plan learning experiences/activities | How to actively engage learners?<br>(e.g. projects, field study, centers, etc.) |

Figure 1 Stages in "End in Mind" Design Related to Assessment/Evaluation

Assessment Language and Effective Practices

Assessment and evaluation, as an integral part of teaching and learning, has "language" that is not always consistent but needs to be understood conceptually in order to improve one's practice. Some key terms and concepts are defined operationally for this practical guide.

Learning Outcomes - what specific knowledge, skills or attitudes will students achieve during or at the end of a course or lesson

Assessment - systematic gathering of relevant information/data by a variety of strategies such as anecdotal observations, papers, tests, portfolios, journals, conferences

Formative Assessment (for learning) - relevant information or feedback (e.g. corrections, self assessment, criteria, verbal and non verbal communication) for both students and teachers on student/teacher performance. This information can assist both teachers and learners in terms of supporting learning and informing future instruction.

Summative assessment (of learning) often called evaluation - attempting to make valid (accurate) and reliable (consistent) judgments (valuing) based on assessment data/information/evidence. These judgments relate should relate directly to learning outcomes.

Reporting - systematic presentation or communication of information on student learning through the assessment and evaluation process. This reporting can be formal (e.g. graded assignments , rubrics, or informal (e.g. verbal or written notes, class work feedback).

Assessment/ Teaching & Learning Cycle as Effective Practice

Many educators believe that their individual teaching and learning styles affect how they plan, teach and assess student learning. For many the cycle is not necessarily a linear process as the Wiggins (1998) "end in mind" model might infer. In order to meet student needs, there are likely adjustments in planning, teaching, and learning experiences. In short, the process is very dynamic. This dynamic nature is illustrated in the assessment/teaching cycle diagrams in Fig. 2 below.

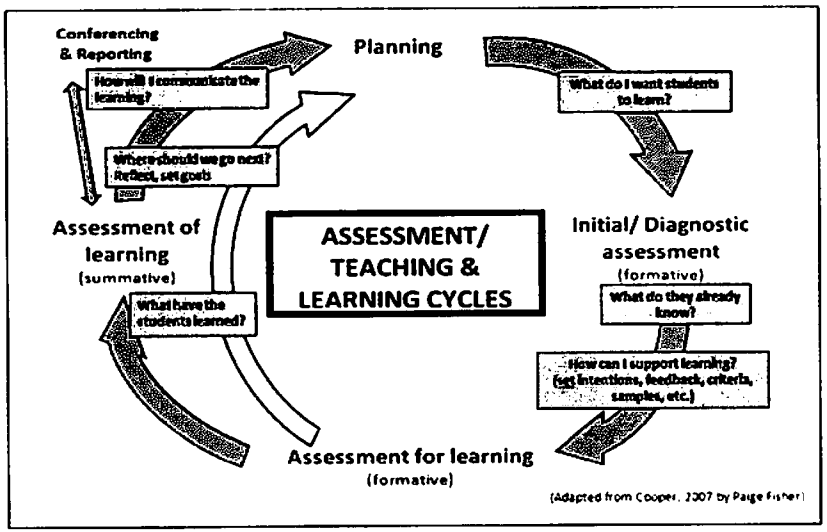


Fig. 2. Assessment /Teaching and Learning Cycle – key questions

Specific Example of Using a Teaching Learning Cycle

A specific practical example of utilizing a teaching & learning cycle is provided by Krynowsky (2010) from his teaching at Vancouver Island University Faculty of Education.

The key concept taught, assessed, and evaluated was unit planning for student teachers. The process, which can be readily adapted for other disciplines, was:

1. Learning outcomes were stated in the course outline (Demonstrate expertise in unit planning for teaching).
2. Students read and analyzed three unit planning models in course reader during class time. Reading could also be done in advance.
3. Criteria for an effective unit plan were developed by students. These criteria were summarized and published by the instructor.
4. Individual students developed and recorded their own unit planning process steps and shared them with a peer group of 3 others (formative feedback)
5. Students, in groups of two, practiced creating draft unit plans in class with guidance and feedback from each other and the instructor. The draft was handed in to the instructor.
6. Instructor provided written feedback on their draft unit plans according to the criteria previously developed (formative and summative).
7. Final exam (celebration of learning) – students were asked to produce a unit plan overview (summative) and were evaluated on the previously developed and communicated specific criteria for a unit.

A few general guiding principles for effective assessment and evaluation Cooper (2007), edited by Krynowsky, summarized some of the principles that could guide your own assessment and evaluation practices.

- Assessment serves different purposes at different times: it may be used to find out what students already know and can do; it may be used to help students improve their learning; or it may be used to let students know how much they have learned.
- Assessment must be balanced, including oral (say), specific performance or skill (do) and or written tasks (write).
- Assessment and instruction are inseparable because effective assessment informs both teaching and learning.
- For assessment to be helpful to students, it must inform them in words, not numerical scores or letter grades, what they have done well, what they have done poorly, and what they need to do next in order to improve.
- Assessment is a collaborative process that is most effective when it involves self, peer, and teacher assessment.
- Grading and reporting student achievement is a caring, sensitive process that requires teachers' professional judgment based on evidence.

Evaluation should:

- Be based on specific assessment data and related to outcomes, standards etc.
- Be valid (accurate) and reliable (consistent) and supported by evidence.
- Be reportable in both formative and summative ways.
- Not be used as reward or punishment.

The University of Waterloo Center for Teaching Excellence provides an excellent synthesis of practical suggestions for assessing and evaluating learning:

- Assignments - designing a checklist
- Assignment design - sequencing
- Effective communication of assignment tasks
- Types of assignments and tests
- Integrating online assignments

## 2E. What are some more specifics on assessment and evaluation tools, techniques, and strategies?

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|---|---|
| "Paige quote."<br><br>- Paige quote | |

There are many possibilities for ways to assess and evaluate learning at the post secondary level. The following section will provide some general ideas and advice as well as specific tools and possibilities.

The University of Waterloo Center for Teaching Excellence for has some specific advice on assessment and evaluation of students. This advice includes:

- Fast and equitable grading
- Managing the paper load
- Integrating online assignments
- Rubrics - useful assessment tools

- Learner-centered assessment
- Methods for assessing group projects

The University of Manitoba faculty handbook (2007) goes into more depth regarding the logistical details of assessment and evaluation. These details provide specifics for assessment and evaluation of your students in a variety of ways.

- Traditional assessment techniques
  - Multiple Choice
  - True & False
  - Matching
  - Completion
  - Short Answer
  - Essay
- Alternative assessment techniques
  - Class Participation
  - Peer Assessment and Evaluation
  - Performance Assessment
  - Portfolios

## 2F. What are the possibilities for teaching strategies/ideas/activities?

"Teaching is a process of becoming that continues throughout life, never completely achieved, never completely denied. This is the challenge and the fun of being a teacher—there is no ultimate end to the process."

- Frances Mayforth

One of the greatest joys of being an educator is that it is a dynamic and exciting profession that allows for personal and professional growth. The act of teaching and learning entails that there are ways use what has worked before, find and try something new, or adapt according to the needs of your students as you go. The key to having growth as a professional educator, is to plan and organize the key concepts and content with a variety of teaching approaches that make teaching and learning compelling for the variety of learning styles that are inevitable in every class you teach.

Professional educators have a wide range of teaching methods and strategies at their call to facilitate student learning. The goal of presenting these strategies is not to overwhelm, but to inspire teachers with the possibilities. Using a variety of these strategies allows us to be creative in how we organize and teach our courses. The possibilities are exciting. A brief summary description should help in planning your instruction.

Overview of Strategies for Teaching and Learning (source unknown)

Professional educators have access to wide range of teaching methods and strategies to facilitate student learning. Here are a few examples:

- argument: an attempt to establish belief through a course of reasoning
- book review: an oral or written evaluation of material, usually dealing with its style, format, content, literacy or informational value
- brainstorming: technique for the stimulation of creative thinking in the development of new ideas consists of individual or small group activity in which a deliberate attempt is made to creatively identify possible approaches and solutions to a given problem. The group participates in spontaneous and unrestrained discussion, followed by evaluative dialogue
- case study: presentation, sometimes involving role-playing, of a true or synthesized situation to develop the judgment of students who evolve and propose possible solutions, either individually or in groups
- center or station: relevant activities that can be done independently based on a theme, subject area, enrichment or adaptation of content
- collections: student or teacher sharing of interests/artifacts
- computer base: internet, research CD Roms, research skills, networking, communicating
- cooperative learning: a variety of strategies designed to involve students in group process and critical thought
- creative writing: original prose or poetry created with general guidelines
- debate: formal presentation of arguments on both sides of a question before an audience in accordance with standardized procedure
- demonstration: the procedure of doing something in the presence of others either as a means of showing them how to do it themselves, or in order to illustrate a principle or concept
- discovery: (also called guided discovery or inquiry) process of gaining knowledge through inquiry or research or experimentation
- discussion: activity in which people talk together in order to share information about a topic or problem or to seek answers to a problem based on available evidence
- display (often called poster): exhibit or showing of articles, research or synthesis of materials
- document study: usually of original, which may provide evidence or information?

- dramatic presentation: composition in verse or prose arranged for enactment to portray life of characters or to tell a story through the actions and dialogue of the players
- drill: repetition intended to bring about improved accuracy and speed of performance
- evaluation: process of ascertaining the value of something by use of a standard of appraisal - includes judgments based on internal evidence and external criteria
- exhibit: collection of objects and materials arranged in a setting in order to convey a unified idea
- experiment: trial of a planned procedure accompanied by control of conditions and/or controlled variation of conditions together with observation of results for the purpose of discovering relationships and evaluating the reasonableness of a given hypothesis
- expert: one who has acquired special skill in or knowledge of a particular subject through professional training and/or practical experience? Can consult an expert. (e.g. internet)
- field trip: students go to places where the materials of instruction may be observed and studied directly in their functional settings
- games: organized play with definite outcomes and rules
- hands-on experience: a learning activity where participants actually apply new knowledge and skills, especially in the production of materials and use of equipment/manipulatives
- illustrated presentation: usually a lecture with visual aids such as overhead projections, charts, power points, and media clips
- independent study: various forms of teaching-learning arrangements in which learners carry out essential tasks and responsibilities to develop the capacity to carry on self-directed learning
- inquiry: a problem-solving mode of investigation which includes the formulation of a hypothesis, gathering/evaluating/organizing data and drawing valid conclusions
- interview: face-to-face meeting of two or more persons for the purpose of sharing information and ideas
- learning station: a physical location, such as a carrel where individual learning occurs, usually in connection with specific instructions that require stated materials or equipment (e.g. anatomy lab)
- lecture: method of teaching by which the instructor gives an oral presentation of facts or principles, the class usually being "responsible" for taking notes/synthesizing ideas
- manipulative materials: a learning activity by which students learn about concepts by handling raw materials, experimenting with them, learning their characteristics, and constructing knowledge/skills from them
- materials production: planning and making materials such as power point presentations, websites, resource files, or models (e.g. art)
- microteaching: teaching practice in a situation in which a group (2-8) are taught by each other (content, concept, skill)
- model-making: forming a three-dimensional figure with materials to represent an idea or form
- panel: group of individuals having a purposeful conversation on an assigned topic with or without active participation by the audience
- programmed learning: instruction utilizing a workbook, textbook, or mechanical and/or electronic device (e.g. computers)
- question-and-answer: method both of instruction and of oral testing based on the use of questions to be answered by students (e.g. critical thinking)
- reading: perception and analysis of written symbols as meaningful
- research project: for the purpose of gathering, organizing and presenting information
- role-playing: instructional technique involving a spontaneous portrayal (acting out) of a situation, condition or circumstance by selected members of a group
- seminar: group of students engaged in research or advanced study meet under the general direction of one or more leaders for a discussion of ideas of mutual interest
- simulation: making the practice and materials as near as possible to the situation in which the learning will be applied
- skit: a short story or sketch included in a review or given separately
- small group work: organization of subgroups within a class for learning according to interests, skills, social needs, or educational needs
- Socratic method: process of discussion led by the teacher to induce the learner to question the validity of their reasoning
- technology - huge variety of media and resources for presentation, communication, research (PowerPoint's, DVD, internet, ask an expert, research reports, You tube, blogs)
- tour: visit (as to a museum, factory, or historic site) for enjoyment or instruction, usually under the auspices of a guide

- treasure hunt: an instance in which individuals search for something of real or imagined value which has been hidden
- tutorial: a process of instruction whereby an adviser works with a small number of individuals and supervises the pursuit of knowledge, attitudes or skills
- video conference- sharing of knowledge or ideas through visual and audio means
- worksheet: a form designed for the rapid and efficient recording of ideas or data, such as a form used for problem analysis
- workshop: an instructional method in which persons with common interests and problems meet with appropriate specialists to acquire necessary information and develop solutions through presentations and group interactions

The University of Waterloo Center for Teaching Excellence provides a synthesis of practical hints for engaging students in active and varied ways:

- Active learning
- Varying your teaching activities

## 2G. How do I plan effective "lessons?"

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|---|---|
| "Tell me; I will forget. Show me; I may remember. Involve me and I will understand."<br><br>- Proverb |  |

The obvious assertion, based not only this guide but your experience, is that there are many ways to plan and teach. There are some common elements in effective planning which can often lead to effective teaching and learning. Some of these principles will be more evident in the variety of teaching strategies presented in this guide.
There are also many formats that can assist in the preparation of engaging and compelling lessons.

| | |
|---|---|
|  | "We do not learn to plan or teach but we learn from our planning and teaching."<br><br>- Laura Lipton, American educator |

## 2H. How can I be an effective presenter?

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|---|---|
|  | "Good teaching is ¼ preparation and ¾ theatre."<br><br>- Gail Goodwin |

Effective teaching and learning and student evaluations of such are often influenced by student engagement in lesson presentations. Post secondary instructors are in the presentation business! The presentation skill set can be the topic for an entire course or book. It is a skill set that, just like an actor, be practiced and developed. For example, videotaping oneself with an analysis with a trusted colleague or friend can provide some amazing feedback to you. Soliciting feedback from your students on their perceptions of presentations with a survey or talking to them provides further insight. Courses such as Toastmasters provide excellent foundations for presentation skills.

Increase Your Presentation Potential

Gross Davis (1993), with editing by Krynowsky (2010), provided some key ideas on how to increase your presentation potential.

- In the shallow end, non verbal presence and dress can communicate confidence and credibility that are important in the first impression realm. Your confident voice, eye contact and movement about the room help with student attention. Mingle with the class as much as possible before hand to reduce the "cold start" effect.
- Be aware of the power of the pause and silent time for thought and reflection. Avoid the temptation to them everything you know about the topic or concept. Think of sportscasters who are absolute masters of the obvious filling in wait and thinking time. If you have nothing to say, say nothing!
- Enthusiasm and energy are crucial for effective presentations. Conversional inflections with a natural concrete, simple and colorful language. Try to avoid jargon and annoying expressions such as "ok, um, well, so, you know, you guys." You can actually keep track of this with an audiotape.
- Some effective delivery techniques to remember include: Using facial expression to convey emotions, eye contact and scanning the room regularly promote more of connection. Reading notes or ubiquitous power points lose an audience quickly.
- Grab student attention early with your lesson opening. A provocative question, an unusual analogy, powerful example or quote, a physical demonstration - these starters help to peak curiosity and start the lesson with some energy. Vary your openings.
- Incorporate relevant stories or personal anecdotes. For example, if you are dealing with a mathematics concept have a real life example of how this situation impacted

you or possibly the students, if the content is about a physical education and nutrition share a personal example of food issues and lifestyle have affected their lives. Relevance is a huge motivator!

- Focus on clarity of explanations by creating sense of order for key concepts, using visuals of key ideas, using general statements followed up with specific and memorable examples , move from simple to complex - the familiar to the unfamiliar, have students repeat key ideas or points or directions for activities.

- Having an occasional laugh at yourself and your presentation faux pas helps maintain a relaxed and humorous environment. Occasional jokes may word for some but natural storytelling within the disciplinary context has considerable impact. The power of storytelling is elaborated upon by Green (2007) in the University of Manitoba faculty handbook.

The University of Waterloo Center for Teaching Excellence provides a few more specific suggestions for effective presentations. These include:

- Lecturing effectively in the university classroom
- Preparing your presentation
- Adapting material for classroom delivery
- Polishing your delivery skills
- Designing and using visual aids

Video clip ideas are located at the Toastmasters effective presentations site and effective presenter skills.

| | |
|---|---|
| "The difference between knowing and teaching is communication."<br><br>- Bernie Krynowsky |  |

## 21. How can I get students more actively engaged in lesson presentations?

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|---|---|
| "The mediocre teacher tells. The good teacher explains. The superior teacher demonstrates. The great teacher inspires."<br><br>- William Ward |  |

The importance of active engagement in teaching and learning is obvious but not always easy to implement because of time, large class size, and curriculum restraints. Gross Davis (1993),with editing by Krynowsky (2010), provided some very specific ideas on how students might be more actively engaged during lessons.

- Use small groups to discuss and or summarize key concepts related to the content. Other ideas are to come up with a solution to a problem, identify reasons for an event, record ideas on paper for posting. Students can learn from each other and share their learning with others in an entire class debrief session.

- Ask for advance preparations of content or ideas that are a focus for the presentation. For example: list key ideas for a reading, do a problem set, be prepared to explain specific concept in this class.

- Ask students to brainstorm ideas or questions or problems related to the topic or content. Record these ideas or questions. These ideas can be categorized. Come back to these at the end of class to address the salient points or questions.

- Break up lesson presentations with "pause and reflect" moments. Give students in groups or individually time to: solve a problem, summarize key ideas so far, take a little quiz on the topic, do a class vote or survey on an issue.

- Post problems or thoughts of the day. Before you begin a lesson have students ask a question or create a problem related to the topic of the day or the course. These problems can be posted or listed and then considered as a part of a closure of the lesson.

- Have an ask the instructor question time. Infuse the lesson by having students submit one question about the topic on a piece of paper and pass it back to the instructor who will answer 2 or 3 of them as part of the lesson.

- Organize a debate or role play. Consider important issues or concept (NOTE: You need to teach the process of how the debate or role plays works). Have students take sides and represent points of view. One example is to reenact the trial of Galileo where a variety of points of view are assigned to students who act out a point of view.

- Invite guest speakers to class with specific or more general focus. Have students prepare questions for the speaker in advance and pass them on to the speaker. This increases relevance and attention to the event.

- Be aware of non verbal cues from students. Reading these is both an art and a science. So much to be learned. Scan the room. Eye contact is an amazing tool. Check your perceptions. For example, I think I see break in your eyes..., or I sense some confusion or agreement - let us check with some of you...

The University of Waterloo teacher center provides more specific suggestions for active engagement of learners.

- Active learning activities
- Activities for large classes
- Varying your teaching activities

## 2J. What are some specific descriptions of effective teaching and learning strategies?

"You can have 20 years of teaching experience, or in rare cases one year 20 times."

- Unknown

There are many possibilities for how teaching and learning can and should be engaging. There are some "tried and true" strategies that will be described in enough detail for you to refine and or try.

Selected Post Secondary Teaching Strategy Suggestions

- a) Direct Instruction
- b) Large Group Instruction/Lecturing
- c) Questioning, Discussion/Debate, and Critical Thinking
- d) Lecture Alternatives (role play, case studies, field study)
- e) Using Technology Effectively
- f) Self-Directed Learning
- g) Group/Cooperative Learning
- h) Special Situations (seminars and laboratory teaching)

a) Direct Instruction

"The mere imparting of information is not education. Above all things, the effort must result in helping a person think and do for himself/herself."

- Carter G. Woodson

Direct instruction, which can be given other labels with "lecturing" probably the most common. Direct teaching is the foundation for effective teaching. It involves the teacher directing the flow of ideas, information providing meaningful practice opportunities, deciding on learning activities and accountability, and possibly some feedback to students on their learning. There are many models and variations of the model. Madeline Hunter (1975) has done considerable consolidation of the main knowledge skills and attitudes to be an effective teacher utilizing a "direct" method.

Engaging Students with Direct Instruction

Gross Davis (1993), with considerable editing by Krynowsky (2010), provided some key guidelines for effective teaching and learning in a directed way. Some of these, with a chronological lesson flow in mind included:

- Need to know your content area - content knowledge cannot be undervalued. If you are knowledgeable and skilled you have much more to share and likely can be more confident and interesting in presentations and learning activities. Finding and utilizing "cool" resources are part of the joy of teaching!

- Do not plan to "lecture" or talk for the majority of class time-keep students active. Meaningful student attention span is between 10-15 minutes for listening to anyone - no matter how engaging! You need to have variety in terms of questions, student interactions, supporting media, and student activities. Avoid scripting or following detailed notes.

- Have a catchy title or theme or challenge of the day as a title for the lesson that you can display on an overhead, PowerPoint, or chart as students enter. Visuals work well for many learners.

- Need to share motivation and outcomes - Students may or may not be intrinsically motivated by your course or the topic of the day. Answering the question of why are we learning this stuff? might be a part of every lesson you teach. Students like to know what the learning outcomes are, the application possibilities for the knowledge skills or attitudes to be learned. Be prepared, compelling, and enthusiastic in this presentation.

- Share the connections between lessons. It is important for students to know the connections between this lesson and other lessons. Tell or show them a visual of key

concepts. Prepare crucial focus questions that direct the instruction toward some goals or outcomes.

- Prepare and record point by point overviews of key ideas to be considered in the lesson. Note cards for yourself and a visible agenda for students to see are important to prepare in advance.

- Presentations need to be engaging. Consider the analogy between a lesson and a theater production where the beginning and end often have the most impact. Like an actor consider the importance of the performance. You can check out the presentation skills reminders (video) in this guide. Prepare crucial focus questions that direct the instruction toward some goals or outcomes. An example of a context and question might be- climate change is not new and should not be too worrisome - it has been around forever and the history of the world is that we will adapt. How will climate change affect you and the next generations?

Presentation Styles:

Realize that there are many ways to present information/lecture. For example:

- expository - where question of problem is approached in a hierarchal order of major and minor points presented in a clear sequence. For example there are three ways to analyze stock market collapses 1,2,3 and these strategies have different possible outcomes.

- interactive/problem solving - where student ideas are used to build on key ideas and generalizations. These ideas are generated in brainstorming, discussions, debates, small group work. A question or paradox or enigma is good starters. For example: "What might happen if..." or "Is climate change a real concern? It has been going on forever anyway."

- case study - where a realistic situation is used to generate problems, alternatives, and general principles. For example, let us examine the case of person X who has been found negligent in a court of law.

- short lecture - key points revealed that turn over to students who are often involved in questioning, coming up with key ideas, and or summaries.

Regardless of strategy here are a few key ideas to consider:

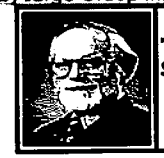
- Allow students to review key ideas or concepts during the presentation. For example, after 15 minutes of presentation ask: "What were 3 main ideas of the presentation so far?," "What was the most interesting thing I learned?," "What surprised me the most?," "What questions do I have about the topic?," "I wonder about..." Students can interact with each other as pairs or small groups. Moreover sharing can be done with the larger group.

- Have an opportunity for students to practice the knowledge or skills. This time is excellent for moving about the teaching space, interacting with students, asking probing questions, reviewing key ideas they have recorded. Students can perform learning tasks and feedback from each other or you. Some examples are "create a list of...," "label a diagram of...," "write a short paragraph on...," "as a group come up with 4 ideas on how to solve this challenge..."

- Have an exciting closure to the lesson - Create opportunities for students to summarize what they have learned in today's lessons. What were 3 key ideas? What do predict we will learn next lesson?. What do you want to know more about? You can student to record their ideas or share with a partner. Build up the "coming attractions" for the next lesson with some motivations or interest points.

- Mingle with students at the end of class. "Relationships, relationships, relationships."

b) Large Group Instruction



"What are the purposes and priorities of teaching? First, to inspire. Second, to challenge. Third, and only third, to impart information."

- Michael J. Bishop

The large class provides many opportunities to our teaching and learning repertoire. Typically the principles of direct instruction (refer to a) Direct Instruction) apply in teaching larger classes. Gill-Robinson (2007), in the University of Manitoba handbook, provided some specific suggestions on the challenges for the student and instructor with possible strategies to make the large class experience more rewarding.

The University of Waterloo center of teaching excellence has a clear and succinct list of alternatives for large class situations.

c) Questioning, Discussion/Debate, and Critical Thinking

"The real challenge in college teaching is not covering the material for the students but uncovering the material with the students."

- Karl Smith

Historically the essence of post secondary education and the main outcomes for students has been the knowledge and skills and attitudes associated with asking questions, being able to clearly articulate and discuss points of view , and critically analyze issues, challenges, and claims. So in short, these crucial skills are ones post secondary educators should be able to effectively utilize and model.

Discussion:

Class discussions and engagements allow of the exchange of ideas, information, and opinion as part of the teaching and learning process. Gross Davis (1993) provided a few suggestions for how discussions in class could better contribute to a course. These contributions' can be in the areas of organizing key concepts, formulating arguments, testing ideas, problem solving, and evaluating evidence in critical thinking.

Two outstanding sites, Columbia and Vanderbilt University, provide comprehensive and practical ideas for class discussions:

- Planning and implementing effective class discussions
- Creating an environment for good discussions
- Discussions in larger classes

Other Hints for Effective Discussions:

You may need to teach some of the skills and remind students of appropriate protocol for discussion in class. Some of these might be:

- What are the ground rules for discussions? (e.g. hands or no hands, right to pass, listening expected, time limits for answers, not criticizing the person, encouraging debates and questioning of ideas... "Listen carefully to ideas, especially if you disagree; everyone is encouraged to participate and this is a safe place to express ideas.

- Prepare students for discussions. For example, define terms of reference, identify main goals for discussion, have key points summarized in some way.

- Do not overuse discussions and keep them focused. Consider using student questions to generate an agenda for discussions.

- Use opening questions, critical incidents, controversy, and brainstorming ideas to open the presenting with an energy, anticipation, and excitement.

- Have students divide into smaller groups to discuss a question or concept. Debrief and record key student ideas.

- Guide the discussion by taking a few notes, scanning the room and monitoring for on task behaviors, listing to student ideas and summarizing key points, be ready to manage time and change focus at the right time , bring closure to the discussion . Students can summarize major pints and or ask some new questions.

- Student participation in discussion is encouraged by students knowing names, having an effected seating arrangement such as a small groups facing or a circle for large group debrief, limiting your own comments and biases, asking every student to make at least one contribution to the group discussion, provide guidelines for how many times or how long a person has the discussion floor.

- Evaluate the time spent in discussion and record some key points that were generalized or made. Solicit reviews of discussion quality from a few students.

The University of Waterloo Center for Teaching Excellence provides more specific hints for:

- Promoting effective classroom participation
- Facilitating effective discussions

Questioning:

Gross Davis (1993) proved some insight into skills needed to provide engagement central to effective teaching and learning. Suggestions for effective questioning, as part of most lessons and discussion, were outlined.

- Identify the key question in advance - Have a sequence that allows for a flow of questions. For example, if the topic was causes of war, the sequential building up of questions might be: "What have some of the major conflicts/wars in the last 200 years?," "What were some of the main issues that contributed to the conflicts?," "What have been some of the consequences of these conflicts?," "What are some ideas that might reduce the conflicts that have occurred in history?"

- Have a variety in the types and levels of questions. They might be:
  - Factual - what are 2 main types of...
  - Clarification - what did you mean by...
  - Elaboration - what are some other examples of...
  - Justification - what are your reasons for...
  - Hypothetical - suppose there were no symptoms how would you...
  - Redirected question - some ideas presented - does anyone have others?
  - Summary - so what are some of the key ideas that...?

Blooms taxonomy of thinking skills (1956) from lower to higher level thinking is a classic model for having variety in questioning for both teaching and assessment of learning.

  - Knowledge (facts) - List 3 types of petroleum products...
  - Comprehension (meaning of knowledge) - give examples of how petroleum products are used in industry...
  - Application (using knowledge in context) - how does the law of supply and demand affect cost of petroleum products?
  - Analysis (explaining relationships, breaking down concepts) - does the law of supply and demand applies for gasoline pricing?
  - Syntheses (combining key ideas to make a whole) - how could a government stimulus package affect small businesses in the petroleum industry sector?
  - Evaluation (making judgments based on criteria or reasoning) - Is it a good idea to have a government stimulus package to support a failing petroleum industry?

The University of Waterloo Center for Teaching Excellence provides further insight into the types of questions you can ask.

- Asking questions - different types

Questioning Hints:

In general effective questioning for student engagement and thinking should:

- Have more why, how, suppose , justify, defend, and elaborate and less of what, when, who, and which questions.
- Use wait time and ask students for their response to peer answers use probe further to once ideas and student engagement.
- Avoid the temptation of asking too many questions at once. Focus the discussion around one question, idea, or theme at a time.
- Avoid yes/no questioning which stifles creative energy and thinking. The best questions usually do not have one single answer.
- Avoid leading/rhetorical questions such as "Don't you think that global warming is the greatest threat to our planet as we know it?"
- Treat most answers as plausible but needing clarifications, redirections, or change in focus. This plausibility promotes a "safe" learning environment and encourages participation.
- Ask questions with a clear focus such as "How can we make a positive effect on the community we live in?" compared to "So what do you think about our community?"
- Wait time, wait time, wait time - silence and thought time is underutilized. Probe, rephrase, ask students to try an answer out on their neighbor if no response is forthcoming.
- Search for consensus or feedback on student answers. For example you can ask learners to validate, comment on, analyze, or provide an alternative answer. This technique encourages learners to engage with each other rather than only the instructor.
- Avoid questions like "Does everyone understand?" or "Do you have any questions?" These questions are a dead end with no purpose. Be more specific!
- Move around the room to interact with students as they engage in answering and discussion. Listen to the student and make eye contact with them and others in the class. Positive non verbals (eye contact, smile, physical proximity) are crucial in establishing a positive and safe learning environment.
- Thank students for volunteering their answer. Do not overpraise responses as it discourages others offering ideas or overcriticize as it also scares away eager participants. Try to find what might be partially valid in a student response and have others build on it.
- Make sure question responses are heard. You can ask a nearby peer to repeat the question if the student is too quiet. Avoid repeating or paraphrasing every student question as this may discourage listening to the initial question.
- If time is wasted and or the question is not appropriate, tell the questioner you will be pleased to answer the question at a break or after class.
- If you do not know the answer, you can ask others in the class to help, suggest resources that might help, make note of the question and tell them you will get back to them the next lesson or via e-mail.
- If you have answered a question and it gets repeated, you can ask the questioner to figure it out with some hints provided by you or ask another student to answer.
- When a student responds, there are many possible directions such as asking for clarification or elaboration, asking for another point of view, acknowledging the originality and creatively of the response, having others restate the response.

The University of Waterloo Center for Teaching Excellence provides a synthesis of practical questioning hints:

- Asking questions - different types
- Question Strategies

Davis (2007), in the University of Manitoba handbook, also provides suggestions for effective questioning as part of the role of discussion in a class setting.

Critical Thinking:

One of the major goals and outcomes of a post secondary education is to model, promote, and practice the knowledge, skills, and attitudes of a critical thinker. Paul and Elder (2006) define a critical thinker as one who:

- Raises vital questions and problems clearly
- Gathers and evaluates relevant information and ideas
- Comes to well reasoned conclusions based on evidence
- Thinks openly with consideration of assumptions and implication
- Communicates ideas and analysis in clear and effective manner

Critical thinking entails a willingness and ability to analyze ideas, studies, and claims and come up with well reasoned arguments and judgments on their value and validity. Critical thinking is not only a crucial life skill but the essence of a lifelong learner and contributing member of any society.

There are many ways to define and teach for critical thinking. The nature of the discipline and or content helps the educator create the opportunities for critical analysis. For example, in the critical analysis of the claim that "9 out of 10 dentists recommend Brand X of toothpaste," there should be numerous questions that evolve regarding the claim such as: "How many groups of dentist were surveyed?," "Were the dentists paid and by whom?," "Where are the specific results of the survey?," "Who were the dentists?" and the list can go on. Critical thinking activities and learning can be, and the author would argue should be, part of all post secondary courses and programmes. The concept of critical thinking at post secondary is worthy of an entire book, however, this guide will focus on some practical ideas to engage students in meaningful and compelling critical thinking activities.

Other Strategies for Teaching Critical Thinking:

**Adsit's (2007) critical thinking overview and suggestions provides an overview of the what and how of teaching for critical thinking including specific strategy descriptions.**

**Qualities and Questioning for Critical Thinking**
**The following list of critical qualities and questions from Elder and Paul (2006) are applicable to many disciplines and topics for critical thinking activities.**

| | |
|---|---|
| **Clarity** | Could you elaborate further?<br>Could you give me an example?<br>Could you illustrate what you mean? |
| **Accuracy** | How could we check on that?<br>How could we find out if that is true?<br>How could we verify or test that? |
| **Precision** | Could you be more specific?<br>Could you give me more details?<br>Could you be more exact? |
| **Relevance** | How does this relate to the problem?<br>How does that bear on the question?<br>How does that help us with the issue? |
| **Depth** | What factors make this a difficult problem?<br>What are some of the complexities of this question?<br>What are some of the difficulties we need to deal with? |
| **Breadth** | Do we need to look at this from another perspective?<br>Do we need to consider another point of view?<br>Do we need to look at this in other ways? |
| **Logic** | Does this all make sense together?<br>Does your first paragraph fit with your last?<br>Does what you say follow from the evidence? |
| **Significance** | Is this the most important problem to consider?<br>Is this the central idea to focus on?<br>Which of these facts are most important? |
| **Fairness** | Do I have any vested interest in this issue?<br>Am I representing fairly other points of view? |

**Debate with critical thinking**
**There are most often many sides to a story or point of view which can be critically developed and analyzed. One focus could be a "change your mind" debate where for and against positions could be taken on a specific issue. The qualifier here is that student has been versed in prior knowledge about the issue and need to be provided for a clear structure and guidelines for the debate.**

**Expert presentations with critical thinking**
**Students as a small group need to become "experts" on a certain topic or concept and then present and analyze their findings to another group or the class, they are responsible for answering all critical questions from the group.**

**Panel discussion with critical thinking**
**A small group of students are assigned or choose different points of view on a topic or issue. There is then the opportunity for interchange of ideas, justifying positions taken, critical debate, asking and answering higher level questions.**

**Role playing with critical thinking**
**Students are assigned a role in a problematic situation related to the discipline . There can be a script of key descriptors of the role, you also need to provide information to the class about the topic or concept. There is then a reenactment of the roles and positions with a "debrief" analysis of key positions, analysis of the roles and process. One example might be the reenactment of the trial of Galileo or an environmental issue with a variety of players and positions.**

**d) Lecture Alternatives**

**The active engagement and creative energy of learners can be accomplished both within and outside the confines of a classroom. Role play offers opportunities to take on a variety of positions and roles in a creative way.**

**Case study offers the opportunity to answer to the classic student refrain of how this applies to the real world. Field study allows for the utilizing and application of knowledge skills and attitudes related to the course.**

**Role Play:**

**Role play usually entails the presentation of a situation and a cast of characters. Students can be given, or improvise or create dialogue and actions to fit the scenario. Some examples might be in recreation or business planning there may be the reenactment of a town hall meeting. In history there may be reenactment of historical events such as the trial of Galileo.**

- **Begin informally and small. For example start with pair roles and situations rather than a whole group. You can a small group do the reenactment with the rest as observers or have multiple small groups.**

- Make the roles and situations meaningful and relevant. The situations might have elements of: choice, decision, conflict, moral issues social problems, current media. A classic example might be the organization of town hall meeting to decide on the fate of power plant proposal for the community.

- Brief the participants and observers. Be clear on roles and structure. Be sure everyone has something to do or record, especially observers.

- There is no need to go all the way with the role situation. Once there has been the role experience and a few high points, the experience, will be able to be debrieted and pursued further as the course progresses. You need to plan for follow up questions and activities.

A concise overview of more specifics that will help in organizing a role play is found at the Carleton University site.

Case Studies:

Case studies, which entail the presentations of scenarios or situations for critical analysis, have been used extensively in the teaching of law, medicine and business. If one invests time and energy into the case study potential, there are probably opportunities a variety of disciplines for this strategy. For example, there may be a real life problem presented in a teaching programme where there has been a formal complaint about standardized testing in the school system. For this case, students would need to learn relevant background, sequence of events, and other facts in the case. The exploration of alternatives choices, decisions and critical analysis provides as wealth of knowledge, skills and attitudes to be learned.

Vanderbilt research center presents an effective overview of sources for learning more about using case studies.

Gross Davis (1993) provides some suggestions for effective case study:

- Chose the case carefully. Search the internet for sources needs to be relevant and compelling with challenge and choices. You need to have the case described carefully. Some examples for cases are form the media, journals, your experiences, experiences of practitioners in the field. Students need to be familiar with and prepare for the case study in advance. Engaging ideas for case study include: real stories, thought provoking issues, no clear cut answer but demands some point of view or choice.

- Provide guidance on what they are looking for in the cases. For example, events, decisions that were or war not made, key players, possible solutions to the challenges. Provide a structure for how the case will be explored (e.g. debate, role play, discussion, presentation).

- Facilitate and ask questions. Your role is to probe, have students interact and justify positions, and come up with possible alternatives or solutions.

- Students can summarize their learning as a result of the case study in journals, notes, assignments.

e) Using Technology Effectively

There are many technology related tools that can make your teaching and learning more or less effective. Chickering and Ehrmann (1996) provided seven key principles for utilizing technology for "good practice:"

1. Encourages contact between student and faculty
2. Develops sharing and cooperation among students
3. Encourages active learning
4. Gives prompt feedback
5. Emphasizes time on task
6. Communicates high expectations
7. Respects diverse talents and ways of learning

Siemens (2007) in the University of Manitoba handbook, provided an excellent overview of the issues challenges and possible practical uses of technology in your own teaching.

Using technology is not a gimmick but a tool. If you use it have a clear purpose and appropriate use. For example computer aided presentations have many benefits in terms of meeting student expectations, are easy to change and adapt, can be shared electronically, can incorporate graphics and music, and have access to cool internet connections. Race (2001) offered suggestions for more effective computer aided instruction.

- Avoid "death by bullet point". Students have been known to thank an instructor for not having power points.

- Really check out the hard ware! Have a plan B. Very few things frustrate as much as teahcnlogy that does not work properly. Having a few key back up overheads is a great stress reliever.

- Use special effects sparingly. Slides do not and probably should not be the same but to many floaters and zingers can create too many distract actions

- Consider resolution from computer to display screen is not great. Be aware of room lighting.

- Do not overload any one slide with information. No more than 15 words per slide.

- Avoid reading the slides. These are post secondary students. Try to have interactive content. For example probing questions, a significant challenge, an interesting or proactive quote as a topic starter.

- Be careful with colour choices. Use dark colours for main print - black, dark green, and blue - and light colours for background.

- Turn the slide off when moving on to new concept or strategy or moving away to speak to other topics.

- Speak facing your audience - not the screen or computer. Learn how to use a remote system. It keeps you more connected to your audience.

- Save your internet connections in favorites for easy location and retrieval. Check out the connections before class.

Rozaitis and Baepler (2007) in the University of Manitoba Faculty handbook, provided many specific suggestions for how to effectively use PowerPoint to actively engage students in a lecture style of presentation.

Videos on the effective use of PowerPoint reinforce the above mentioned principles.

McLean (2007), in the University of Manitoba handbook, provided some tips for organizing and managing online discussions.

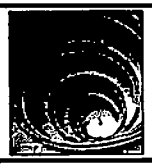
The University of Waterloo teaching center provides specific hints for:

- Designing and using visual aids
- Laptops in the classroom (vice or virtue?)
- Integrating online assignments
- Encouraging academic integrity online
- Online discussions: tips for students

I) Self-Directed/Independent Learning

"A good teacher has been defined as one who makes himself/herself progressively unnecessary."

- Thomas J. Caruthers



Traditionally assignments have been a vehicle for self directed or independent leaning. Assignments provide a vehicle for demonstrating the attainment of learning outcomes though tasks such as portfolios, papers, exams, special projects, in class task.

The University of Waterloo Center for Teaching Excellence has some specific ideas and suggestions for self-directed learning. These include:

- Self-directed learning - a four step process
- Self-directed learning - contracts
- Self-directed learning - readiness to learn

The author has had the most amazing success with self directed learning as main part of his course. The sample independent project contract can be used in most every post secondary course! He has had students thank him for the opportunity to do the assignment. Products that often result exceed what the instructor would ever do and some are publication quality.

g) Group/Cooperative Learning

"The mere imparting of information is not education. Above all things, an education is a person or group of people thinking and drawing their own conclusions based on information."

- Carter G. Woodson

Working together in group learning is a very powerful teaching and learning strategy. There is an amazing power in the group as evidenced how many of the professions and carriers demand working together as a group or a team in some way. Gross Davis (1993) summarized many of the terms that describe the concept of working together. These include: cooperative learning, peer teaching, peer learning, team learning, study circles, study groups, and collective learning. These terms and approaches have differences and nuances. Moreover, group learning/cooperative learning has differing conceptual structures and ways of being described. The common thread is individuals within a group working to learn knowledge skills or attitudes in collaboration, consultation, debate, and problem solving.

The University of Waterloo center for Teaching Excellence has devoted much of their site to group or cooperative learning. Some salient hints and suggestions are:

- Implementing group work in the classroom
- Strategies to prepare students for group work
- Group work in the classroom - small group tasks
- Group work in the classroom - types of small groups
- Methods for assessing group work
- Group decision making
- Group roles - maximizing performance
- Making group contracts
- Handling group work breakdowns

Effective Group Work

Gross Davis (1993) provided a few other suggestions for effective group or collaborative work. These included:

- Be selective of group work opportunities. Do not overuse and plan for the organization, products, and outcomes of the work. Consider many small tasks and activities within the class presentation rather than major projects.

- Carefully explain to students the expectations. These included grading as found in assessing student group work, specific goals and tasks, and timelines.

- Need to teach or review some of the skills for group work. Assuming students know how to do cooperative work can lead to challenges. The University of Waterloo site has specific suggestions for students that you can teach in:
  - Being an effective group member
  - Handling problems in group work
  - Group decision making

- Consider written contracts which might describe responsibilities, obligations and deadlines. There is power in written contracts compared to the aural "I thought you said..."

- Consider how groups will be formed. Alternatives include self selection, random, and instructor selected. These election methods have their own benefits and risks. In general, group sizes of 3-4 work best according to Gross and Davis (1993).

- Have periodic check ins and progress reports from groups on their progess or challenges.

- Provide a structure for the group work or project. Students need to know about grades, deadlines, what each member does, accountability, and reporting. The quality of how you organize the project has plenty to do with its success.

- Have a system for handling student concerns. Prevention in organization and communication is much better than handling problems! The University of Waterloo provides suggestions for handling problems in group work.

h) Special Situations

Seminars:

A seminar teaching and learning has a variety of ways to be organized. The main thread in this approach is smaller group with a focus on questioning, discussion, debate, and problem solving. Often part of the seminar involves the presentation of some information by the professor or students.

Queens University has a site that summarizes some key ideas for effective seminars along with some links that add more depth to using the approach.

Laboratory Teaching:

"It is worth remembering that effective laboratory instruction entails using principles of effective teaching and learning presented in this guide."

- Bernie Krynowsky

Many post secondary institutions have a variety of laboratory teaching especially in science and technology related fields. This strategy is invaluable and necessary for making connections between the theory of constructs and their exploration, validation, modification, rejection. The focus is mostly "hands on" with a variety of skills and procedures that are part of the education of many students, scholars, and professionals. Some of the common disciplines that utilize the laboratory setting include physical sciences, social sciences such as geography and psychology, medicine, engineering, earth sciences, and life sciences. The list of applications is considerable and therefore deserves some attention in this guide.

One of the challenges in laboratory teaching is the linkage of knowledge skills and desired attitudes to the coursework. If the laboratory section of the course is taught by another individual, clear and regular communication is essential so that the possible disconnect can be reduced.

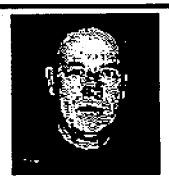
The University of Virginia has created a check list of ideas to assist laboratory teachers in the areas of preparation, implementation, and effective presentation.

The Faculty of Medicine and Dentistry at the University of New Jersey has compiled 15 links that provide a comprehensive examination of many possibilities for effective lab teaching.

## 2K. What are some other teaching hints and ideas?

"Teaching hints and suggestions are easy to provide. It is the determination and willingness to attempt some of them that will inevitably make a positive difference in teaching and learning."

- Bernie Krynowsky



There are many sources of ideas for you to "tinker" or adapt your planning, teaching, and student assessment. Some of the sources are your colleagues, professional magazines, current disciplinary knowledge, the internet, books, and this guide. Changing is contingent upon your desire to make it better for your students. This section of the guide will loosely organize a collage of ideas that may work for you and your students. Please feel to add to this list by e-mailing Bernie Krynowsky.

Nilson (2003), in "Teaching at its Best" and Gross Davis (1993) in "Tools for Teaching" provided summaries of ideas that both validate and summarize many ideas in this guide.

Student Motivation and Positive Relationships

- Deliver your presentations with enthusiasm and energy. Strive for vocal variety and constant eye contact. Vary your speaking pace, and add dramatic pauses after

major points. Gesture and move around the class. Be expressive. To your students, be they right or wrong, your dynamic presence signifies your passion and enthusiasm which can be contagious.

- Make the course personal. Give reasons why you are so interested in the material and make it relevant to your students' concerns. Show how the knowledge skill and attitudes learned are important to them or society. You can become a role model for student interest and involvement as a lifelong learner.

- Get to know your students. Ask them about their majors, interests, and backgrounds. This information will help you tailor the material to their concerns. Your personal interest in them may inspire their personal loyalty to you. Talk to your students about what excites and interests them. In the least if you do not inspire, you have made a personal connection!

- Foster good lines of communication in both directions. Convey your course expectations in clear and systematic way, both verbally and in writing . Be willing and open to suggestions. If students perceive you are willing to listen and change, they often forgive other shortcomings.

- Provide frequent early, positive, and specific feedback on student performance. Students need or should know how they are doing. Offering extra assistance is a great remediation and public relations strategy.

- Use student ideas and contributions and build upon them. Use questioning, probing, and sharing of ideas as a way to relate content and concepts.

- Use humour where appropriate. A joke or humorous anecdote lightens the mood and can enhance learning. A positive, open, and occasionally fun learning environment equals great faculty reviews!

- Active learning with a variety of activities is essential. Discussing, questioning, brainstorming, recording, sharing ideas, manipulating concrete material, analyzing ideas with critical thinking. No more than 10 minutes of lecturing in any stretch.
- In summary, student motivation is related to instructor enthusiasm, perceived relevance of material, clear organization and expectations, active involvement of learners, variety in presentations, positive rapport within the group, use of concrete and easy to follow examples.

Course Organization and Delivery

- Design, structure, and develop your course as if you were a student in your own class. Explain its organization and your rationale for the content. In general, most students respond well to reasons versus none.

- Give students some voice in determining what the course will uncover. If students perceive that they have input, they will feel more invested and responsible for their learning. Try a needs survey or pre instructional task to find out what they know and want to learn about.

- Be clear about expectations and course requirements. Provide opportunities for clarifying and questions. Assignment examples make instructor life much easier.

- Plan for variety - active student engagement with students listening, writing, sharing, designing, and problem solving. Talk less and have students do more!

- Appeal to extrinsic motivators and make relevance explicit. Inform students about what jobs and careers are available in your discipline and how your course content prepares students for these opportunities.

Effective Teaching

- Explain the how and why for the lesson/course structure. Many of us respond well to sharing of strategies and rationales.

- Use examples and realistic case studies when possible. Many students learn inductively and relate well to relevant and real examples.

- Provide opportunities for discovery learning. There can be a great satisfaction and motivation by reasoning through a problem or concept versus being told.

- Use a variety of student-active teaching formats and methods for the diversity of learning styles that are inevitable. Discussion, debates, press conferences, symposia, role playing, simulations, problem-based learning, and the case method, problem solving, and writing exercises. These activities directly engage students in the material and give them opportunities to achieve a level of mastery for achievement's sake.

- Teach with the arts to stir student emotions. This is a standard culture-learning strategy in the foreign languages, but it has far broader application. In math courses, show the utility of concepts and equations in visual design and musical composition. In history, anthropology, literature, and comparative politics courses, show students the art of the age or place.

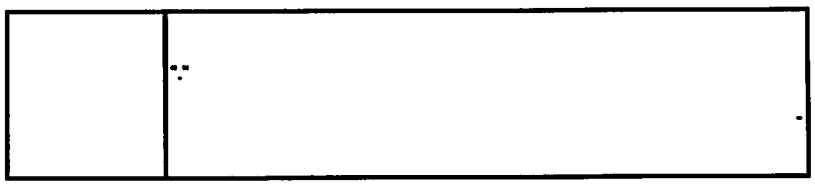
- Make the material accessible. Explain it in common language avoiding jargon and big words which often hide meaning.

Assignments and Tests

- Stress conceptual understanding above rote memorization. While students must acquire some facts to master the basics of any discipline. Facts are only tools with which to construct broader concepts.

- Set realistic performance goals and help students achieve them by encouraging students with your genuine enthusiasm and your own goal setting.

- Allow students options for demonstrating their learning. Choices in projects and other major assignments are powerful motivators.
- Design assignments that give students practice in possible future occupational activities. Explain the relevance and importance of these connections.
- Evaluate work with explicit criteria. Clear criteria (e.g. rubric) reduces both instructor and student stress.
- Consider deemphasizing testing and grading as a main motivator. Make tests fair, which means consonant with your students' learning outcomes, topical emphases, and previous quizzes and assignments. Tests should be a means of showing students what they have mastered, not what they haven't.
- Give students prompt and constant feedback on their performance. This feedback also promotes some check points in the process that can help students with their time and energy management.
- Accentuate the positive in grading and feedback. Be free with praise and constructive in criticism and suggestions for improvement. Acknowledge improvements made. Confine negative comments to the particular performance, not the performer.



# Thoughts and Ideas for Self Reflection and Personal Growth

## Chapter 3

Laura Lipton, an American educator, postulated that we *do not learn to teach but rather we learn from our teaching.* There is so much to learn as a post secondary teacher. Attributes such as caring, passion, and courage to change make it more rewarding for both the teacher and the learner. One might systematically consider what you and students are doing, why are they or you doing it, and how it could be done better. Open and honest communication with students or colleagues, soliciting specific feedback on your teaching, and an open minded attitude for change are paramount in this reflection, analysis, and adaptation. For many professionals, self improvement is not only better for the clients you serve, it can result in increased job and personal satisfaction.

### 3A. How can I improve my teaching and learning? - Reflective practice

The story is told of a student at one of our more prestigious universities who was approached by one of his lecturers who had observed that the student was not taking notes. "Young man," said the lecturer, "I notice that you don't take notes in my lectures. How can you hope to pass the exams?" "No problem," replied the young man. "I have my father's notes!"

- Bland Tomkinson

In the University of Manitoba Faculty Handbook, McLean (2007) provides an effective conceptual framework for how and why one might consider reflective practice.

The University of Waterloo Teaching Center provides some specific ideas for enhancing teaching and learning. Some of the suggestions include:

- Tools for reflecting on your own teaching
- Receiving and giving effective feedback

## 3B. How can I get useful feedback from my students?

"Much I have learned from my teachers and colleagues, but most from my students."

- Talmud

Getting Results: Gaining Insight on Your Teaching

With all the focus on student assessment, instructors sometimes overlook the second major reason to assess learning in the classroom—to gain insight on teaching. Getting a read on which teaching methods are most successful becomes easier after many years in the classroom—but even novice instructors can begin to assess the effectiveness of their teaching with the use of some simple evaluation tools. In this section, you'll learn how to evaluate your teaching through classroom research, peer review, and teacher reflection.

The most widely used feedback method is an end of course survey. Most post secondary institutions have some form of after the class evaluation survey. These surveys are often part of formal faculty evaluations. These surveys or variations of them can be useful for an instructor to gather information from students about their own teaching and learning. Some examples of surveys will be found in After Course Student Feedback.

There are many other ways to gather information from students during the term to improve teaching and learning in a more immediate and powerful way. Some ideas for these will be highlighted in Getting Immediate Student Feedback.

Getting Immediate Student Feedback

Gross Davis (1993) provided some practical ideas on getting useful information from students that can assist instructors in improving both short and long term teaching. With immediate feedback and some action, it is not too late for the students you are working with to benefit. The feedback can help with selection of teaching methods, knowing what students' needs are, improving clarity and expectations, and possibly adjusting assignments. You need to be clear on what specific information is useful and have a variety of strategies to collect the information. Some of the possible strategies are:

- Student feedback form with anonymous voluntary feedback at the end of a section of the term. General questions and open response work well with this technique. For example you can ask what is going well for them and why, what suggestions they may have for course content or delivery, and/or what their needs are that need to be addressed. You are best to leave the room and have a student volunteer collect the forms and return them to a department secretary for pickup after.
- Lesson questionnaire at the end of class with 4-6 short answer specific considerations that can be rated or commented on. You can ask about level of difficulty, use of class time, pace of the class, degree of engagement in lesson, and/or specific suggestions for change.
- Student focus group form - You or a colleague can conduct an informal feedback session with your students during the concluding 10 minutes of one class. Students can be asked to meet in small groups with a recorder who will summarize suggestions and positive comments from the group. You can have general questions such as:
    - What is working well for you or not?
    - What are the most positive aspects of the course?
    - What suggestions might you have for course improvement?

  A colleague or student can collect and organize the comments or provide them as is.
- Management committee feedback form - Establish a student liaison or management committee. You can ask for volunteers or have an appointed/elected group of 2-4 to meet with you periodically outside of class to provide a gauge for how well the content and instruction is working for class members. Students need to know who the liaison committee members are. If teaching multiple sections you can have one delegate from each volunteered, appointed, or elected. Meet with the committee once or twice in the term and acknowledge the meeting results with the rest of the class.
- Suggestions Boxes - Have a place for written anonymous suggestions for course content, course comments, questions, student needs, and lesson presentations. You can have a locked box in a convenient location. The back of a classroom or department office are possible locations.
- Electronic student survey - You can solicit student feedback with an electronic survey such as Zoomerang or Surveymonkey. This strategy has many positive features such as anonymity, efficiency, ease of use, and statistical analysis. Surveys can be used multiple times or at the end of the course.
- E-mail or other discussion groups (blogs, moodle, wiki's) can be useful in responding to facilitating communication and acknowledging student needs and input. Students appreciate a timely response.
- Individual student interviews. Carefully select students from the class who will provide honest and sincere feedback on how the course is progressing from a student perspective. Summarize the main points of the interview in terms of what is going well and possible changes for both the immediate and future.
- Closing Course Outcome review. Make copies of your course outcome page from your course outline. Ask students to review/evaluate the intended outcomes by rating or commenting on the degree to which the outcome was achieved. This

anonymous information can be collected and should provide excellent feedback on your teaching.

You might consider some general suggestions for communicating with students.

- Any feedback provided to should be responded to with gratitude and a sharing of what actions might result from it.
- Please do not get swayed by the inevitable few negative comments, although it is easier said than done. There is always some negative energy if you look for it. Look for the entire positive and patterns in the constructive criticism.
- Record suggestions and you might change in the course (turnaround time for assignments), or for next year (the text was not good or needed), or not change (having a final exam).

Immediate Lesson Student Feedback

A large part of improving our teaching and learning is immediate feedback within any given lesson. Gross Davis (1993) provided a few suggestions for lesson feedback. Consider making this student feedback an optional to promote a more positive sharing environment.

- "Minute paper" - At the end of class, ask one or two questions like: "What was my most significant learning today?," "What questions do I have about the topic?," "What was the best part of today's lesson?," "What part of the lesson was most/least clear?" Give them one minute to write a written response to one or two of the questions.

- Feedback starter questions to be written and handed in to you: Some examples are: "Three main ideas from today's lesson were...," "I was most interested in...," "I was surprised by...," and "One question I have is...." These questions inform you about student learning.

- Brief summary or review sessions a few times during the lesson. Ask students to paraphrase the reading, discuss the main points of the presentation with a peer, or provide a written summary of key ideas. This summary can also be the end of the class. It lets you know what students may have learned.

- Ask a few students if you can see their notes at class end. This perusal should inform you about the organization and flow of content and concepts from a student perspective.

- Mini quiz on key concepts in the lesson. Consider the content of the presentation and have specific questions to be answered and handed in. This quiz should provide feedback on student learning and your teaching.

Getting Results: Conducting Classroom Research

Before you can make any changes, you need to gain insight on your teaching. Asking students to provide feedback and engaging them in the assessment process lets them know that you respect their thoughts and value their contributions, and they may find it empowering and enjoyable. Students are able to see research in action and gain an appreciation for how it informs practice.

The following are some specific strategies for gaining feedback from your students, adapted from *Classroom Assessment Techniques* by Thomas Angelo and Patricia Cross (1993).

- *The Minute Paper* - The minute paper is a short exercise in which you ask students to write for one minute on two questions: What was the most important thing you learned today?; and, what question still remains in your mind after today's class?
- *The Muddiest Point* - This assessment method is similar to the minute paper. Students write a one-minute essay on the muddiest point that remains in their minds after a lecture, demonstration, or presentation.
- *The One-Sentence Summary* - In this method, students write and then discuss a one-sentence summary that describes the content covered in class.
- *Directed Paraphrasing* - In directed paraphrasing, students summarize a concept or procedure in two or three sentences.
- *Applications Cards* - Here, the instructor asks students to think of real-world applications of topics discussed in class.

When using these strategies in class, make sure you tell your students that you are not grading the responses, but trying to get a feel for their understanding. Asking students to reply anonymously may help dispel any anxiety. After you have collected the responses, read them carefully. If you don't have time to closely analyze responses, at least do a quick tally to see if the same muddy points or questions keep coming up. Or sort responses into piles that represent students who seem to get it and those who don't. Share what you've learned with students, and change what you do in class accordingly.

Lawall, in the University of Manitoba Handbook (2007) provides some suggestions for getting student feedback on lessons and the University of Waterloo teaching center suggests how to use student feedback.

After the Course Student Feedback


"To teach is to learn."

- Japanese proverb

Three examples of teacher feedback will be linked: 1. SEEQ (Student Evaluations of Educational Quality), 2. Vancouver Island University Faculty Evaluations, and 3. An Electronic Student Survey. These feedback systems are useful in providing feedback to you on your teaching.

1. SEEQ (Student Evaluations of Educational Quality) - The main categories for feedback are: student learning, teacher enthusiasm, teacher organization, group interactions, individual rapport with students, and breadth of teacher knowledge, examinations and assignments. Opportunities for open ended comments are often added as well.

2. Vancouver Island University Faculty Evaluations

3. Electronic Student Survey - You can easily create an electronic survey with questions from your inner self, SEEQ, or the VIU Faculty evaluation forms.

## 3C. How can I get feedback from my colleagues and other sources?

"Teaching is a process of becoming that continues throughout life, never completely achieved, never completely denied. This is the challenge and the fun of being a teacher—there is no ultimate end to the process."

- Frances Mayforth

Colleague/Peer Feedback

Getting Results: Peer Review Content

Another valuable way of receiving feedback on your teaching is through peer review. In their own classrooms, instructors are often so busy presenting information, facilitating discussions, monitoring student groups, answering questions, and keeping an eye on the time that they may not notice issues that can negatively impact learning. Having a peer in the classroom who is expressly dedicated to observation can be invaluable.

In peer review, a colleague sits in on a class and offers feedback from a different perspective. Peer review does not have to involve advice or judgment. Often just having more information on what is going on in class can make a big difference in how an instructor prepares and presents lessons.

In some colleges, formal peer review programs exist, often as a requirement for new instructors and sometimes as a professional development option for tenured instructors. Generally, a team of more experienced instructors make observations and comments on the teaching dynamics they observe in a classroom.

If your college does not have a formal program, informal peer review is another option. This can be as simple as asking a colleague to sit in on a class meeting and take notes on what she sees and experiences. It's best to ask a more experienced colleague, but even a novice can provide valuable feedback. Let that person know what specifically you would like feedback on—presenting information clearly, facilitating groups, or fostering a welcoming community.

Finding a trusted colleague to observe and provide feedback can be an excellent tool to receive feedback on your lessons and teaching.

It is important to have a clear plan and focus for the observation. The relationship between you and the colleague ideally should be honest and trusting. Gross Davis (1993), provided some suggestions as to how this feedback might prove fruitful.

- Find a colleague who is willing to participate in your class - Course familiarity and relevant teaching experience are important considerations. There may be a teaching and learning center or faculty development office that can provide names of peer observers.

- Plan for the observation - You need to meet the observer before to determine: previous and future lessons overview, intended lesson outcomes, course goals, approach to be used. Provide a course outline for peer review. Determine what the observer will be looking for (e.g. checklists, rating scales, open ended comments). Ask for specifics you would like them to collect data on. Data is more powerful than opinion! You might consider focus on: questioning, positioning, organization and flow of content, engagement of learners, teacher mannerisms, clarity of explanations, or verbatims.

- Meet with the observer after the lesson - Ask them questions about what they experienced. Concrete and specific data makes more of a difference in analysis. Come up with 2 or 3 main areas where strengths were observed and one or two areas where specific improvements might be desirable.

A sample peer lesson review form might provide an effective starting point.

Video a Lesson

Watching yourself on video can be very enlightening and effective for self improvement. You need to do this with "broad strokes" and not focus on the details that do not affect your teaching. You can do an analysis of what you see in terms of how you: dominate discussion, ask and answer questions, deliver content, communicate with mannerisms and eye contact. Gross Davis (1993) offered a few suggestions for viewing. These included: use the media center to do the taping, select a typical lesson and let the students know in advance, view the tape soon after, plan to review the tape with goals in mind, go for the "big picture" of what went well and what specific behaviors/strategies might be changed.

You can analyze specific behaviours such as movement about the room, bias in questioning, types of questions asked (need variety in levels), and teacher talk vs. student talk, verbatim of how you responded.

A video lesson review form might assist in providing clear and specific information.

Information and questions from your students, colleagues and other sources often create challenges and possibilities for change. Gross Davis (1993) provided a few insights into how one might implement changes.

- Jot down or record your data, ideas, and suggestions for your teaching of lessons or the course. The attached sample lesson adjustment form may be a useful starting point.

| | |
|---|---|
| "The dullest pencil exceeds the sharpest memory."<br><br>- Unknown |  |

Reflections are easier done right after the lesson for most of us! Consider the following questions: What worked well? What needs to be changed? What did I learn about teaching? What suggestions did I get from students? How well did students learn? What teaching strategies do I need to reconsider or keep? What changes do I need to make in assignments? What behaviours do I need to change in terms of teaching or interpersonal relationships?

- Consider student /other comments/reviews/data over the term. Look for patterns rather than one of a kind. If there is a pattern consider if you want to make an adjustment. Consider competing one of the course evaluations as a student would (Refer to the SEEQ, VIU, electronic evaluation forms).

- Compile and reorganize teaching materials such as the syllabus, readings, assignments and exams, teaching notes. You can eliminate, re- order, or look for what is needed to improve the course and or your teaching. The list of teaching strategies and possibilities is a tremendous tool for infusing your teaching with more variety.

- Consider consulting with a peer to discuss and provide feedback on specific possible adjustment to your course and or your instruction.

It is important to be specific in this discussion. Roberts (2007), in the University of Manitoba handbook summarizes ideas for an effective peer review. The University of Waterloo teaching center provides specific ideas on professional growth through faculty mentoring.

## 3D. How can I document and record my professional growth and scholarly activity?

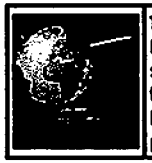
| | |
|---|---|
| "It is good to have an end to journey toward; but it's the journey that matters in the end."<br><br>- Ursala Le Guin |  |

Post secondary teachers are often held accountable for their performance in terms of not only teaching but scholarly and community service. Many post secondary institutions have a "race for tenure" system that requires the documentation and organization of professional scholarly activities.

Benbow (2007), in the University of Manitoba faculty handbook, offers some suggestions for preparing a professional portfolio.

The University of Waterloo Center for Teaching excellence provides some excellent guidelines and suggestions for creating a teaching dossier.

## 3E. What are some inspirational and motivating thoughts and ideas on teaching for long term professional growth?



**The profession of post secondary instructor or professor is time honoured and important in the lives of future generations and societies. There have been many inspirational ideas regarding the teaching profession. It is fitting that these ideas provide a reminder for how important our work is and how we can continue to grow personally and professionally.**

Inspirational Teaching Ideas and Quotes

As a good teacher knows, the methods of instruction and range of material covered are matters of small importance compared with the success in arousing the natural curiosities of students and stimulating their interest in exploring on their own.'

- Noam Chomsky

Whoever our students may be, whatever the subject we teach, ultimately we teach who we are.

- Parker Palmer

A good teacher has been defined as one who makes himself/herself progressively unnecessary.

- Thomas J Carruthers

Who a teacher is, is more important than what he/she teaches.

- Karl Menninger

The Teacher as Scholar is important...the Teacher as Person is crucial...the Teacher as Communicator is indispensable.

- J. Jordan

Watch your thoughts; they become words. Watch your words; they become actions. Watch your actions; they become habits. Watch your habits; they become character. Watch your character, it becomes your destiny.

- Frank Outlaw

To be a teacher in the right sense is to be a learner. Instruction begins when you, the teacher, learn from the learners, put yourself in their place so that you may understand when they understand and in the way they understand it.

- Soren Kierkegaard

To know how to suggest is the great art of teaching.

- Henri Frederic Amiel

We should not be speaking to, but with; that is second nature to any good teacher.

- Noam Chomsky

A teacher is a very special person who uses his or her creativity and loving, inquiring mind to encourage others to think, to dream, to learn, to try, to do!

- Beverly Conklin

I have heard that successful people do the best he/she can with the conditions as he/she find, and do not wait for next year for better.

- E. W. Howe

Good teaching is one-fourth preparation and three-fourths theatre.

- Gail Godwin

I am not a teacher, but an awakener.

- Robert Frost

The mediocre teacher tells. The good teacher explains. The superior teacher demonstrates. The great teacher inspires.

- William Arthur Ward

The teacher who is full of his/her subject is usually very slow in emptying himself/herself.

- Evan Esar

The person who can make hard things easy is the educator.

- Ralph Waldo Emerson

The difference between knowing and teaching is communication.

- Hurt, Scott and McCroskey

Much have I learned from my teachers and colleagues, but most from my students.

- Talmud: Ta'anith, 7b

The art of being wise is the art of knowing what to overlook.

- William James

The educator should be the "leading learner."

- Thomas Groome

Not only is there an art in knowing a thing, but also a certain art in teaching it: "*Nam non solum scire aliquid artis est. Set quaedam ars etiam docendi.*"

- Cicero, DeLegibus

Nothing great was ever achieved without enthusiasm.

- Ralph Waldo Emerson

When you have nothing to say, say nothing.

- Charles Colton

There are three things to remember when teaching: know your stuff, know whom you are stuffing, and then stuff them elegantly.

- Lola May

There are two ways of spreading light: to be the candle or the mirror that reflects it.

- Edith Wheaton

The real art of communication is not only to say the right thing in the right place, but also to leave unsaid the wrong thing at the tempting moment.

- E-mail humour

The real challenge in college teaching is not covering the material for the students but uncovering the material with the students.

- Karl Smith

We must view young people not as empty bottles to be filled, but as candles to be lit.

- Robert H. Shaffer

To educate a person in mind and not in morals is to educate a menace to society.

- Theodore Roosevelt

Any fool can criticize, condemn, and complain—and most fools do.