

Enhance Learning Together

# Okanagan College Teaching Guide





An Institute for Learning and Teaching Project
Prepared by Renée Lapierre

Edited by Margaret Evans

Reviewed by the ILT Teaching Guide Committee consisting of:

Carl Doige Margaret Evans Rob Kjarsgaard Chandra McCann

2012



# **Okanagan College Teaching Guide for Instructors**

# **TABLE OF CONTENTS**

Welcome
---------

Chapter 1.	Adult	s as Learners	1	
-	1.1	Learning Styles		
	1.2	•		
	1.3	1 5		
	1.4	•		
	1.5			
	1.6	Generational Learning		
	1.0	Contractional Loanning		
Chapter 2.	Teach	ning Adults	9	
•	2.1	Preparing for the First Day of Class		
	2.2			
	2.3			
	2.4	9		
		·		
Chapter 3.		media and Technology	18	
	3.1	Planning the Use of Instructional Media		
	3.2	Technology Instructions		
	3.3			
Chapter 4.		uctional Planning	23	
	4.1	3		
	4.2	Lesson Planning		
Chapter 5.	Class	room Management	32	
Onapto. Of	5.1		0_	
	5.2			
	5.2	Dealing With Difficult Behaviors		
Chapter 6.	Learn	ner Assessment and Course Evaluation	40	
•	6.1	Strategies to Appropriately Measure Learning		
	6.2	Designing a Learning Assessment Plan		
Chapter 7.	Instructional Development 46			
	7.1			
	7.2	Strategies and Resources for Developing Instructional Sk	ills	
	7.3	The Institute for Learning and Teaching (ILT)		
	7.4	Summary		
Endnotes			57	
Appendix A	ILT Le	earning and Teaching Books	60	
References			62	



# Chapter 1

# **Adults as Learners**

In this chapter:

1.1 Learning Styles

1.2 Multiple Intelligences

1.3 Diversity

1.4 International Students

1.5 Possible Learning Disability Indicators

1.6 Generational Learning

# Before you start

You may have classes of learners of all ages. The following features tend to be more applicable to adult or post-secondary learners. Adult learners:

- Have a rich base of life experience to link to new learning;
- Have a practical focus to learning, seeking to solve real-life problems;
- Feel a need for an immediate application of new learning;
- Need to feel a sense of self-directedness, related to the independence of the rest of their adult lives; and
- Tend to be voluntary learners, attending class to satisfy a personally perceived need<sup>1</sup>.

# 1. Adults as Learners

# 1.1 Learning Styles

## Why are learning styles important?

As an instructor it may be helpful to have some information about adult learning and about how students learn. Learning styles can be thought of as your students' **preferences** for certain kinds of learning activities over others.

Reflect for a moment: How do <b>you</b> learn best?
☐ In a classroom listening to a lecture; reading; reflecting; writing?
Composing your own study notes, graphs, creating diagrams or charts to understand the material in your own way?
Doing an experiment; trying something out for yourself; working with others in a small group?
☐ Avoiding the classroom altogether and learning by doing; going out into the field?
Did you check all of the four groups above? Then you are a learner who likes to use all

## **Kolb's Learning Styles**

The term "adult learning" was popularized by Malcolm Knowles, an American educator, in 1968. Since 1968, over 75 learning theories have been written about in the English language. One of the most popular and enduring theories used to help develop engaging and interesting lesson plans is that of David A. Kolb. In 1976 he developed the *Learning Styles Inventory* © which is in use to this day.

approaches. Most learners, though, have preferences of one style over another.

David Kolb identified four major learning styles:

- 1. Concrete Experience
- 2. Reflective Observation
- 3. Abstract Conceptualization
- 4. Active Experimentation

Though it is important to note that each individual's learning style is usually a composite, it is useful to have an understanding of the four styles. Briefly, those who prefer **Concrete Experience** tend to be "people oriented." They generally find theoretical approaches to be unhelpful; they learn best from specific examples, and tend to be oriented more towards peers and less towards authority.

Those who lean towards **Reflective Observation** rely heavily on careful observation in making judgements and prefer, for example, lectures that allow them to be impartial objective observers.

Those who gravitate towards **Abstract Conceptualization** prefer an analytical, conceptual approach to learning. They tend to be oriented more towards things and symbols, and less towards other people. They get frustrated by unstructured "discovery" learning approaches.

Finally, those who prefer **Active Experimentation** learn best when they can engage in projects, assignments, or small group discussions. They generally dislike passive learning situations such as classroom lectures.<sup>1</sup>

# **How Can Teachers Use Information about Learning Styles?**

Examples of Teaching Activities that Support Different Aspects of the Learning Cycle<sup>2</sup>

Concrete Experience	Reflective Observation	Abstract Conceptualization	Active Experimentation
Readings	Logs	Lectures	Projects
Examples	Journals	Papers	Fieldwork
Fieldwork	Discussion	Projects	Homework
Laboratory	Brainstorming	Analogies	Laboratory
Problem Sets	Thought Questions	Model Building	Case Study
Trigger Films	Rhetorical Questions	Flow charts	Simulations

# Visual, Auditory, or Kinesthetic Learner? Three Modalities of Learning

You've probably heard a student say, "I'm a visual learner". You might find that another useful way to look at learning styles is to consider whether your learners learn best by **seeing**, **hearing** or **doing**. Gloria Frender's chart <sup>3</sup> describes these learning modalities. Which one do **you** relate to?

Visual	Auditory	Kinesthetic
Mind sometimes strays during verbal activities	Talks to self out loud	Likes physical rewards
Observes rather than talks or acts	Enjoys talking	In motion most of the time
Organized in approach to tasks	Easily distracted	Likes to touch people when talking to them
Likes to read	Has more difficulty with written directions	Taps pencil or foot while studying
Usually a good speller	Likes to be read to	Enjoys doing activities
Memorizes by seeing graphs	Memorizes by steps in a	Reading is not a priority
and pictures	sequence	
Not too distractible	Enjoys music	Poor speller
Finds verbal instructions difficult	Whispers to self while reading	Likes to solve problems by physically working through them
Has good handwriting	Remembers faces	Will try new things
Remembers faces	Easily distracted by noises	Outgoing by nature, expresses emotions through physical means
Uses advanced planning	Hums or sings	Uses hands while talking
Doodles	Outgoing by nature	Dresses for comfort
Quiet by nature/notices details	Enjoys listening activities	Enjoys handling objects

## What you can do to incorporate Learning Styles into your teaching:

- ✓ Develop an awareness of the types of teaching activities or assignments that favour a particular type of learning style (see the table above).
- ✓ Vary your teaching activities and assignments so that certain learning styles are not constantly disadvantaged (see Chapters 3 and 4 of this Guide).
- ✓ Allow students to choose, if possible, how they demonstrate competence in some assignments, e.g. paper or project, individual or team work.
- ✓ Provide appropriate support when you know that an activity or assignment requires behaviours to which learners of another style are unaccustomed. Techniques for doing this could include additional tutorials, group assignments, availability during office hours, and peer support.
- ✓ Determine your students' learning styles as much as possible. In other words, try to understand not only what your students know or don't know, but also how they came to know it. Techniques for doing this could include observation, discussion or asking students to write a mini paper on "How I learn best" or "My most rewarding learning experience".
- ✓ Conduct your own classroom-based "action research" on the relationship between learning styles and student satisfaction/performance.<sup>4</sup>

# 1.2 Multiple Intelligences

In 1983 Howard E. Gardner published a seminal book called *Frames of Mind: The Theory of Multiple Intelligences*. <sup>5</sup> At that time he proposed that there were seven main "intelligences"; he later added two more.

The table below presents his proposal: :

Ability:	Has to do with:	Examples of careers often chosen by people with this ability:
Logical-mathematical	Logic, abstractions, reasoning, numbers	Mathematicians, computer programmers, engineers
Spatial	Visualization	Artists, designers, architects
Linguistic	Words, languages, reading, writing, telling stories, memorizing words, learning foreign languages	Translators, writers, linguists, lawyers
Bodily-kinesthetic	Handling objects skilfully, sense of timing, goal of physical action, ability to train responses so that they become like reflexes	Athletes, pilots, dancers, actors, surgeons, police officers, firefighters
Musical	Sensitivity to sounds, rhythms, tones, music and pitch	Singers, instrumentalists, conductors, composers, disc jockeys
Interpersonal	Interaction with others, sensitivity to others' moods, feelings and temperaments	Extroverts, sales people, politicians, managers, social workers
Intrapersonal	Self-reflection, understanding of self, introspection	Authors, psychologists, counsellors, philosophers, clergy
Naturalistic	Nurturing and relating to one's natural environment	Naturalists, farmers, gardeners
Existential	Ability to contemplate phenomena beyond sensory data	Physicists, mathematicians, scientists, cosmologists, philosophers, priests and shamans

Gardner stressed that his theory of multiple intelligences does not have a direct practical application in the classroom. Yet, over the decades since the publication of *Frames of Mind,* it is what educators have tried to do. This body of thought has been widely used by educators in teaching study skills and attempting to understand what makes students tick.

It should be noted that Gardner is known as a developmental or cognitive psychologist. Whereas "learning styles" describe how learners learn, multiple intelligences describe cognitive processes. For a summary of Howard Gardner's career read Ellen Winner's biography:

#### http://www.howardgardner.com/bio/lerner winner.htm

Theoretical trends in the literature related to adult learning fall into three broad categories:

- Theories related to Constructivism and Cognitivism
- 2. Theories related to Phenomenography
- 3. Socio-cultural Theories

Suggested readings are listed in Appendix A. With further study in this area you will be able to assess or choose the relevance of the many forms and methods for education and teaching with regard to their pertinence in your teaching practice.

The Institute for Learning and Teaching (ILT) at Okanagan College has resources to help you in this regard:

- Newsletter published three times a year (Winter, Spring and Fall)
- Books and other resources (see Appendix A of this Guide)
- Workshops and learner-centered courses
- Faculty mentors and contacts

The **ILT LibGuide** is a quick link to the ILT's resources including newsletters, learning resources, multimedia presentations, bibliographies, library resources, and other related materials. The link is: <a href="http://libguides.okanagan.bc.ca/content.php?pid=117515&sid=2449734s">http://libguides.okanagan.bc.ca/content.php?pid=117515&sid=2449734s</a>

Check the **ILT** website for more information: <a href="http://illt.okanagan.bc.ca/">http://illt.okanagan.bc.ca/</a>



# 1.3 Diversity

Diversity in the college classroom has many faces. "Diversity" is a contemporary term used to refer to:

- Gender and gender expression
- ❖ Age
- Sexual orientation
- Religious or spiritual beliefs
- Language of origin
- Ethnic, cultural or national background
- Level of physical or cognitive abilities
- Socio-economic status
- Canadian or Immigrant

Take a moment to reflect on your own assumptions and beliefs in relation to any of the groups listed above.

Beth Glover Reed (1996) reported on a series of faculty-initiated and -designed workshops that attempted to help develop and improve the skills of faculty members for work in multicultural classrooms. As part of their reflection in these peer learning sessions, faculty participants expressed the following priorities for future learning:

- ✓ Make my course content more multicultural.
- ✓ Handle race- and gender-related incidents in class with confidence.
- ✓ Avoid racist behavior as an instructor.
- ✓ Adopt a teaching style that is effective with a wide variety of student cultural styles.
- ✓ Incorporate critical thinking about race, gender, ethnicity, and class in courses.
- ✓ Help students deal with these differences in class.
- ✓ Surface and deal with covert race and gender conflicts effectively.
- ✓ Avoid centering all authority on self.<sup>6</sup>

**Tip:** In Chapter Four of this Guide, you will see a section on **Cooperative Learning**. You may find it to be a useful strategy in terms of delivering effective instruction in a diverse classroom.

# 1.4 International Students

Unless you've had your own experience as an international student, you may be unaware of the many challenges encountered by international students while working to achieve their post-secondary education. Cultural adjustments required by international students can affect their ability to learn by methods you think should be easy. The following list can be helpful for instructors to assist with integration of international students into the classroom.

## Strategies to help International Students

- ✓ Write key words and concepts on a whiteboard to support a spoken lecture.
- ✓ Use eye contact and smile.
- ✓ Make a point of asking a student for an answer if you think he or she might know it.
- ✓ Wait for a response because some cultures pause before speaking.

- ✓ Some students are not comfortable calling instructors by their first name or asking the instructor for help.
- ✓ Students might not be comfortable with interactive learning, so encourage them to ask questions or provide opinions. Allow extra time on exams for students who speak English as a second language.
- ✓ Remember that insider jokes and stories only make sense to insiders, and some students may take jokes or slang literally.
- ✓ Offer alternative ways to gain class participation credit.
- Encourage international students to bring a knowledgeable friend to office hour appointments.

# 1.5 Possible Indicators That a Student May have a Learning Disability

You might see an indication of a learning disability in one of your students. A learning disability might manifest itself in different ways, such as:

.

- Excellent math abilities but poor language skills
- Good verbal expression but poor written expression
- Phonetic spelling but sophisticated ideas
- Ability to learn concept quickly but difficulty in putting ideas on paper
- Creativity and innovativeness but poor in application
- Excellent mechanical skills but weak reading skills
- Slow rate of response but excellent retention
- Intuitive learning style but difficulty in following directions
- Excellent abstract thinking abilities but student has time management problems

If you suspect that your student could use further support have them contact Okanagan College Disability Services

#### **Disability Services Mission Statement**

The purpose of Disability Services is to provide equal access to educational opportunities for students with disabilities at Okanagan College.

Students can contact Disability Services in the following ways:

#### By email:

Refer to the Okanagan College website, Disability Services page, for email addresses of Disability Services staff.

#### By phone:

Kelowna: 250-762-5445 Judy Colpitts ext. 4477 or Patricia Toma ext. 4703

Penticton: 250-492-4305 Linda Bjerrisgaard ext. 3242 Salmon Arm: 250-832-2126 Susan Cawsey ext. 8221 Vernon: 250-545-7291 Sharon Robbie ext. 2209

#### On Campus:

Kelowna: Welcome Centre / Student Services

Penticton: Administration Office Salmon Arm: Administration Office Vernon: Administration Office

# 1.6 Generational Learning

Your classroom might also contain people from different generations, from teenagers to seniors, who bring different backgrounds, needs, and expectations to your classroom. Some broad characteristics that you might find are:<sup>8</sup>

**Veterans:** Born between 1922 and 1942, you may not encounter them as much in your class, though they may be well represented in particular regions or subject areas. They prefer a learning environment that is stable, orderly and risk-free. They appreciate consistency, logic and discipline and prefer content to be anchored in precedent or related to tried-and-true practice.

**Baby Boomers:** Born between 1943 and 1960, this is the largest population group active. The Boomers prefer a traditional classroom set-up and expect students to be agreeable and respectful. They expect homework and extra assignments. They have considerable personal experience that should be recognized in the classroom. They might have fears about technology and may be uncomfortable with it. They tend not to like to make mistakes with technology.

**Gen X** (Generation X): Born between 1961 and 1980, the Gen X generation is sometimes called the sandwich generation because this group is situated between two larger population groups. It's a small generation of learners who are independent, seek a relaxed and fun atmosphere and appreciate clear and simple directions from their teacher. They are also known for their cynicism. You might want to use humour in your classroom to soften this tendency. They don't confer respect automatically but expect you to earn it. They would rather be coached than be told or be lectured. They enjoy visual and dynamic materials. They don't care for heavy homework loads or heavy reading.

**Gen Y** (the Millennial Generation): Born between 1981 and 2001, Gen Y is a large cohort, and the Gen Y learners expect the appropriate and integrated use of technology in the classroom. These learners are generally comfortable with group work and can multi-task with ease. They might have short attention spans and need movement in the classroom. They benefit from mentoring, and instant communication and feedback from you, their instructor. They expect clear instructions, such as what time frame to expect a response; office hours, or virtual office hours; clear and precise grading criteria. Gen Y learners want their education to have practical value in the workplace. So you might begin your lesson with practical reasons about how the class will pay off for them in the future.





# Chapter 2

# **Teaching Adults**

In this chapter:

2.1 Preparing For the First Day of Class2.2 Learner-Centred Instruction2.3 Active Learning

2.4 Question and Answer Techniques

# Before you start

- Remember what it feels like to be a student.
- Have realistic expectations of your students.
- Reflect on your memories of your favorite teachers. What made them great teachers?
   Model your own teaching practices on theirs.

# 2. Teaching Adults

# 2.1 Preparing for the First Day of Class

## First Things First - Before the first day of class:

Find your classroom, visit it, and accustom yourself to its dimensions. Write something on the board, then go to the back of the class and see if you can read your writing. Try to imagine yourself as a student in your own class!

## On the first day of class:

Write the course name, number, section, and your own name, office hours, and phone number on the board. Don't talk too fast ... and

- ✓ Tell your students something about yourself;
- ✓ If the class is small enough, have the students introduce themselves;
- ✓ Talk about the text, the edition they will need, additional readings and where to find them:
- ✓ Clearly explain your expectations of them;
- ✓ Outline policies regarding attendance, participation and meeting deadlines;
- ✓ Describe penalties for late submission of work, plagiarism or missing assignments.<sup>9</sup>

#### Fact:

In 1990 a study was conducted at Broome Community College in New York to determine if there was a measurable relationship between attendance patterns and final grades in courses. Findings of the study revealed that there was a statistically significant positive correlation between poor attendance and low grades; and based on study results, it was recommended that the college implement an attendance policy.<sup>10</sup>

#### **Classroom Communication Checklist:**

Don't be afraid of silence – take a moment to think before you talk
Use clear and precise terms
Know your students
Avoid jargon
Listen carefully
Be sensitive to student behaviour
Create equity in your classroom or laboratory
Use humour appropriately <sup>11</sup>

## Characteristics of an Effective Instructor: 12

- Knowledge and enthusiasm for the subject matter and teaching
- Good organization of subject matter and course
- Effective communication
- Positive attitudes towards students
- Fairness in evaluation and grading
- Flexibility in approaches to teaching

## 2.2 Learner-Centred Instruction

"No teacher exists without students." - Natalie Goldberg

#### Classroom Climate: How to achieve Student Involvement



Building a successful teaching – and learning – environment depends on both the teacher and the student. However, the initial responsibility for achieving this state falls on the teacher, the individual perceived by the student as the expert, the figure of authority, or the leader within the relationship. It would be an understatement to say rapport in the classroom is important. Students are often very hesitant to speak out in class: their questions go unasked and students remain silent because they are afraid to lose their confidence and damage their self-esteem by being put down in front of their classmates.

How can you, as the instructor, create an **open, rewarding and responsive classroom environment?** 

- ✓ Listen to what students say without comment. Use eye contact, non-verbal cues such as a nod, and facial expression to indicate that you are interested.
- ✓ Do not dismiss student comments with a vague phrase such as "uh huh" or "okay"
- ✓ Try to incorporate student comments and responses into your material
- ✓ Encourage students to respond to each other by inviting them to comment on a remark a classmate has made.
- ✓ Write responses or comments on the board to emphasize the value of student contributions in your class.
- ✓ If you are unsure what a student is asking, ask some questions which will help you clarify, rather than saying "I don't understand what you mean".
- ✓ Never try to capitalize on students' confusion by ridiculing or joking about incorrect responses. That will create the very kind of inhospitable climate you are trying to avoid.
- ✓ Never discourage questions by saying, "Well, that was really straightforward. I don't suppose there are any questions, are there?"<sup>13</sup>

## Classroom Climate: Impact on Class Attendance

Although students may not realize this, there is a direct correlation between attendance and grades. Three factors have the greatest impact on attendance:

- Quality of Classes. Classes that are well-taught, and are clearly useful, are usually well-attended.
- 2. **Frequent feedback**. This encourages students to attend and helps them improve their work. You can encourage regular attendance by giving small assignments.
- 3. **Reduced anonymity**. It is easy to skip classes at large institutions, after all, who will notice? You, as the instructor, might ask the student in a respectful way if they need help with the work they missed. This kind of friendly enquiry will send the message that you care about them as students.<sup>14</sup>

## Classroom Climate: Dealing with Challenges

You are working hard at developing a positive classroom climate. If students disrupt your classes, talk to them privately after class. Be gentle in your approach. Problems may take many forms:

**Personal or academic problems:** Refer the student to the college services available -- counsellors for academic and personal problems, and advisors for questions about Okanagan College courses.

**Grade disputes:** Be willing to explain exactly why you gave the grade you did. Occasionally you will make a mistake because every teacher does. Acknowledge it gracefully and correct it. But, if you are sure you marked fairly don't allow the student to push you into changing his or her mark.

**Academic dishonesty (cheating and plagiarism):** Academic dishonesty has only occurred if there was an intention to be dishonest. By improving teaching methods, cheating can be discouraged. See Okanagan College's *Scholarly Misconduct Policy*, D.3.2 (2008).

## **Classroom Climate: Be a friendly listener:**

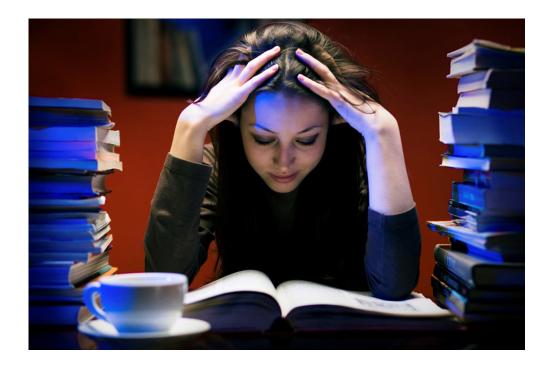
Many students find various aspects of college life stressful. Some experience circumstances or personal difficulties that lead to noticeable distress. You can help by simply listening in a caring and attentive manner, letting them know you understand what it is like for them, and perhaps helping them figure out what they will decide to do. Focus on listening and providing information but let them make their own decisions.<sup>15</sup>

"They won't care how much you know until they know how much you care."

Parker Palmer

## **Counseling Services:**

Personal, emotional and academic problems are a normal part of student life. Okanagan College's professionally trained counsellors are available to assist students in coping with problem areas in their lives that interfere with maximizing their academic and social potential. One of the most helpful ways of dealing with problematic situations and feelings is to talk them through with an experienced counsellor.



Students can contact counselling services in the following ways:

#### By Email

Refer to the Okanagan College website, Counselling Services page, for email addresses of counselling staff.

## By Phone

Kelowna: Contact the Welcome Centre ext. 4119 Penticton: Contact Laurie Minuk ext. 3232 Salmon Arm: Contact Susan Cawsey ext. 8221 Vernon: Contact Derrick Doige ext. 2208

#### On Campus

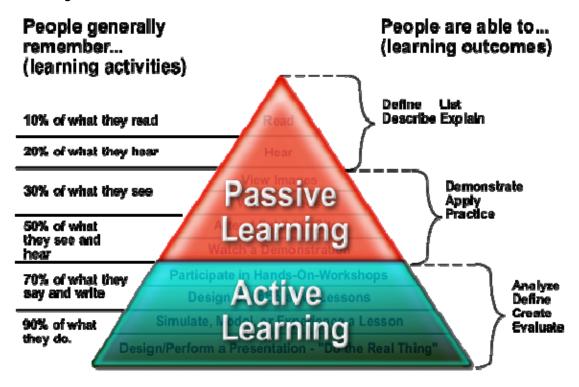
Kelowna: Welcome Centre in the Student Services Building

Penticton: Administration Office Salmon Arm: Administration Office

Vernon: Administration Office or D366 (Derrick Doige's Office)

# 2.3 Active Learning

Active Learning and Learner Centered Instruction go hand-in-hand. Active learning is a broad term which refers to several models of instruction. It focuses the responsibility for learning on the learner. The diagram which follows compares Bloom's Taxonomy with Active Learning. <sup>16</sup>



The University of Waterloo's Centre for Teaching Excellence lists several active learning activities that you might incorporate into your teaching:

- ✓ Questions
- ✓ Pro and Con Grid
- ✓ Brainstorming
- ✓ Ungraded Quizzes
- √ Think-pair-share exercises
- ✓ One Minute Paper or Short Writing exercises
- ✓ Problem Solving Demonstrations, Proofs and Stories
- ✓ Modeling Analytical Skills
- ✓ Debates
- ✓ Role Playing

For a complete discussion, go to

http://cte.uwaterloo.ca/teaching resources/tips/active learning activities.html

# 2.4 Question and Answer Techniques

Questions and answers are amongst the oldest teaching techniques and remain effective to this day. They are essential components of teaching and learning. Asking a good question will help you:

- ✓ Motivate your students' curiosity about the topic; and
- ✓ Assess how well they understand the material.

There are two kinds of questions: **closed** and **open**. A closed question is used to check student comprehension. It requires a factual answer. The answer is either correct or incorrect.

#### Examples of **closed** questions:

What does 'x' equal in this equation? Which of Henry VIII's wives survived him?

An open question offers the students opportunity to speculate, draw inferences, extrapolate from data, or contribute their own opinions.

#### Examples of **open** questions:

What do you think would happen if we reduced the temperature by 25 degrees? Which of the two short stories provides the best description of adolescence?

**Open** questions are frequently the springboards for lively class discussion. You might want to think of some possible answers to an open question before you ask it in class.

**Tip:** Write the possible answers to your open question in your lesson plan. The abbreviation for this is "A.R." (**A**nticipated **R**esponse). Chapter Four of this Guide, "Instructional Planning," covers lesson planning.

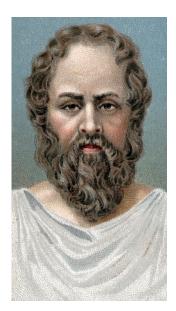
#### **Answering Students' Questions**

Sometimes answering questions from your students can be unnerving if you do not know the answer. If you do not know the answer, say so. It is better to be honest than to give an inaccurate answer that you will have to retract later. Tell the students you will find out for them by next class, or invite the questioner to find the answer and report back at the next class.<sup>17</sup>

"I was gratified to be able to answer promptly.

I said I don't know."

Mark Twain



What we can learn from Socrates...

The **Socratic Method** is named after Socrates, an Athenian scholar and teacher who lived from 469 BC to 399 BC. Socrates questioned his students in an unending search for truth. He asked questions until contradictions were exposed, thus proving the fallacy of the initial assumption. There are several definitions of the Socratic Method. A useful one for college teaching might be the following: "The Socratic method is a pedagogical technique in which a teacher does not give information directly but instead asks a series of questions with the result that the student comes either to the desired knowledge by answering the questions or to a deeper awareness of the limits of knowledge."

#### **Bloom's Taxonomy**

Benjamin Bloom, an American educational psychologist, chaired a committee of educators and in 1956 edited a text called *Taxonomy of educational objectives: the classification of educational goals* (N.Y.: Longman, 1956). Commonly called Bloom's Taxonomy, this widely used classification system divides educational objectives into three domains: cognitive (knowing), affective (feeling), and psychomotor (doing). Within these domains, learning at higher levels is dependent on having achieved the prerequisite knowledge and skills at lower levels. One of the goals of the taxonomy is to encourage educators to focus on all three domains. The following sections of this guide make reference to this taxonomy.

# Developing Questioning Techniques 20

You can make use of Bloom's Taxonomy as a framework to differentiate questions you need to ask more effectively. The six levels of the Bloom's Taxonomy are:

- Knowledge or recall describe, identify: who, where, when
- Comprehension translate, predict, explore why
- Application demonstrate how, solve, try in a new context
- Analysis explain, infer, analyze
- Synthesis design, create, compose
- Evaluation assess, compare, contrast, judge

## **Questioning Methods**

- Rhetorical: When you answer your own questions it can be illuminating but you can also run the risk of moving too quickly without assessing the level of understanding of your class.
- Large Group: When you ask the large group collectively for an answer it can be a good way of getting involvement and generating discussion but you can run the risk of just having the same couple of high achieving students answer every question. The group questioning approach can be useful while covering new material.

- Small Group/Think-Pair-Share: When you use a think-pair-share approach you will:
  - 1. Provoke the students thinking with a question and give them some time to think about it:
  - 2. Pair the students together to compare their mental or written notes and identify the answers they think are best; and
  - 3. Call for pairs to share their thinking with the rest of the class.

Using a think-pair-share approach can be a powerful way of creating a structure for students thinking and discussion. It gives a wait time for students to simply think, it gets all students involved in thinking about the answer, and gives students an opportunity to try out their answers in the private sanctuary of the pair before going public.

"I once asked an adult educator, 'If you had one tip or trick to pass on to help shift students from a passive role in learning to a more active role, what would you suggest?" Without hesitation he suggested the 'think/pair/share'."

Jennifer Sigalet, Vernon Campus Librarian

Targeted: When you pick out an individual student and ask them a question you will
encourage all students to be ready to respond with an answer, as they know they
may be chosen. You will also be preparing them to respond to real world situations
when they will need to respond to customers and coworkers questions with carefully
articulated explanations.

Some instructors prefer this method as they can use it to encourage participation from all class members. The risk is that you will put students on the spot and could make them feel uncomfortable. There is less risk of this if you are using targeted questions while reviewing material already covered. An option is to let students know today, what targeted questions you will be asking them tomorrow, to give them time to prepare their answers so they will not feel unprepared and uncomfortable.

#### **Questioning Tips**

- Plan for questioning
- Allow suitable response time and opportunities for thinking
- Use think-pair-share sessions
- Ask as many open questions as you can
- Questions should be used to develop collaborative work
- If you start a session with a question, make sure you refer back to that question at the end of the class and review the question
- Socrates: if teaching is the act of asking questions, it's important to think about the questions and plan them appropriately

As you begin to think about how you want to teach your course, adopt a style that feels comfortable to you, and try introducing a variety of appropriate teaching styles to engage your students and address their different learning styles.

The next chapter, Multimedia and Technology, will give you tips on selecting instructional media, and using online resources to complement your teaching. Planning the use of multimedia and technology is part of the course planning and lesson planning processes.



# Chapter 3

# Multimedia and Technology

In this chapter:

3.1 Planning the Use of Instructional Media

3.2 Technology Instructions

3.3 Learning Platforms

# Before you start

- Remember that technology is a teaching tool
- You're only limited by your imagination
- Don't let technology replace you as a teacher in the classroom
- Don't forget to have a backup in case the technology malfunctions

# 3. Multimedia and Technology

# 3.1 Planning the Use of Instructional Media

Here are some questions to ask yourself as you choose which media to use. Will the Instructional media:

- ✓ Help attract the students' attention?
- ✓ Develop their interest in the subject matter?
- ✓ Change or adjust the learning climate?
- ✓ Increase students' understanding?
- ✓ Promote acceptance of an idea I am putting forth?
- ✓ Introduce hands-on and interactive activities? <sup>21</sup>

Technology is a **teaching tool**, and as a teacher you are only limited by imagination. The number of tools we have at our disposal is ever increasing. The list is endless, but here are some common examples:

Newer examples: Power Point, Moodle, YouTube

Older examples: CDs or cassettes, DVD or video tapes, slides

Even older examples: Overhead projectors, Chalkboards

Whether it be chalk or a clicker, it is possible to vary your teaching methods, engage your students and make class a more enjoyable environment for both teacher and learner. Don't be afraid to experiment.

Selecting instructional media will be part of your lesson planning process. You can use the nine considerations below as a checklist for selecting instructional media.<sup>22</sup>

- 1. Define objectives for your lesson.
- 2. Prescribe the instructional activities for your lesson.
- 3. Consider group size and necessary stimuli.
- 4. Consider the location and resources within the classroom.
- 5. Assemble a short list of suitable instructional media.
- 6. Consider the costs, availability, and your own preferences to develop a mix of different instructional media.
- 7. Select appropriate commercial products, or produce your own.
- 8. Implement the lesson.
- Evaluate the lesson.

"YouTube videos are the latest tool I've used in class. Why reinvent the wheel when other talented people have created excellent teaching resources and made them freely available (don't forget to check for copyright)?"

Michelle Main, Reference Librarian

# 3.2 Technology Instructions



Tips in Delivering Multi Media Presentations <sup>23</sup>

- ✓ Technology should not replace you as a teacher in the classroom. There is a danger of "overdoing" it. Only use the technology if it is applicable and directly benefits the subject and students.
- ✓ Learn how to use the technology in advance. Planning ahead and getting the bugs out before your class saves you from having to use back-up methods. Visit the room where you will be giving your class to determine if the appropriate resources and equipment are available for the type of presentation you're planning.
- ✓ Have your presentation ready in several formats. If you are planning a Power Point presentation and your computer crashes, use slides printed from your Power Point presentation.
- ✓ Use visuals, colour, text and sound appropriately. Test the projected image and see whether it is readable and audible from all areas of the classroom. Be consistent in the style and colours you choose; use sound and animation sparingly.
- ✓ Only use visuals and computer-created images when they add to your subject. *Use graphics and colour to draw attention to your content. Keep the framework simple.*
- ✓ Alter the pace of your presentations. Stay within the guideline of one to three seconds between single thoughts and three to five seconds between complex thoughts.
- ✓ Try to face the audience at all times. Your students don't want to look at your back during the whole class. Avoid facing the projection screen or whiteboard.
- ✓ Stand on the left side of the room if you are using a projected image in your presentation. *It is easier for your students to read left-to-right.*
- ✓ Prepare your content well. A beautifully designed presentation with weak content will not impress your viewers.
- ✓ Interact with your audience. Walk around the room, make eye contact and involve your students by asking questions. Rather than turning off all the lights in your classroom, keep the lights on in the back of the room and dim the lights only in front of the screen.

## How to make an A/V booking and find other useful information:

http://www.okanagan.bc.ca/administration/itservices.html

# **Educational Technology Department**

Audio Visual/Videoconferencing Tech (862) 4737 Educational Technology Support Tech (862) 4848

## **Management Information Systems Department**

Manager 4541 MyOkanagan Help Desk 4848 WebCT Help Desk 4848

# 3.3 Learning Platforms

Learning Platform is a generic term used to describe a range of integrated web-based applications. These can include web pages, email, message boards, text and video conference, shared diaries, online social areas, as well as assessment tools. <sup>24</sup>

Examples of learning platforms are Moodle and Blackboard.

Learning platforms are electronic course management systems that help instructors design courses that they teach in a regular classroom setting and manage them on the World Wide Web. They allow students to access information about the course, have online discussions and review their progress in the course at any time.



A learning platform provides many tools that you can use for course management, including course email lists, bulletin boards, course calendars, assignment drop-off boxes, online quizzes, study resources, demonstrations, lecture notes or references and tools which enable you to post grades. <sup>25</sup>

Ask yourself: What materials do I want to make available to my students?

- Online quizzes?
- Assignments?
- Blogs?
- Discussions?

#### Moodle

Moodle is a free source learning platform. Based on a constructivist model of teaching, Moodle was developed in Australia by Martin Dougiamas in 2002. It now has over 57 million users worldwide. <sup>26</sup>

The Moodle site states:

"The word Moodle was originally an acronym for Modular Object-Oriented Dynamic Learning Environment, which is mostly useful to programmers and education theorists. It's also a verb that describes the process of lazily meandering through something, doing things as they occur to you to do them, an enjoyable tinkering that often leads to insight and creativity. As such it applies both to the way Moodle was developed, and to the way a student or teacher might approach studying or teaching an online course. Anyone who uses Moodle is a Moodler." <sup>27</sup>

#### **Moodle Links**

http://docs.moodle.org/22/en/About Moodle

http://docs.moodle.org/22/en/Managing a Moodle course

http://docs.moodle.org/22/en/Managing content

## How Moodle works at Okanagan College

Logging in:

- Go to <a href="http://moodle.okanagan.bc.ca">http://moodle.okanagan.bc.ca</a> and click the word Login at the top right.
- Your username is your OC ID number (300xxxxxx)
- Your initial password is your birthdate in mmddyyyy format.
- Once you're logged in you'll see the OC Moodle home page.

More instructions can be found at:

http://www.okanagan.bc.ca/administration/itservices/edtech/Moodle.html

In summary, **technology** -- whether it is audio-visual or computer-based -- is meant to be an **aid** to instruction. Technology is a teaching tool; don't let it replace you as a teacher in the classroom. Take advantage of learning platforms, such as Moodle, as a course management tool, and finally:

Don't forget to have a backup in case the technology malfunctions!

The next chapter of this Guide, Instructional Planning, will give you tips on course planning and lesson planning. It will take into consideration the various concepts which have been introduced in these three chapters: how adults learn, learning styles, multiple intelligences, diversity and international students, learning disabilities, generational learning, preparing for the first day of class, question and answer techniques, learner-centred instruction, active learning and finally, the use of multimedia and technology. I don't know what happened here



# Chapter 4

# Instructional Planning

In this chapter:

- 4.1 Course Planning
- 4.2 Lesson Planning

# Before you start

- Take an overall view of the course: what are the goals and objectives of the course?
- How large is your class?
- How can you best organize your material so that you can make effective use of your instructional time?

# 4. Instructional Planning

# 4.1 Course Planning

You have knowledge and experience in a subject area which you want to share with others. How are you going to communicate that knowledge and experience to the students in the most organized, effective, and engaging manner? *You need a plan*. <sup>28</sup>

Every course needs to be planned. Without planning and preparation your thoughts might appear disjointed, and you might forget important points. You could take too long in one section and not leave enough time for another; you might forget a visual aid or a handout.

A lack of preparation will make you look as if you don't know what you are talking about.

If you have taught the course previously, it might take less preparation time. However, you will have a new group of students. What might be different about this group? How can you avoid becoming stale in your presentation?

#### What are the **goals** and **objectives**?

**Goals** are the long-term desired outcomes. Goals are the reasons you are teaching the course. They are not necessarily achievable by the end of the course. By taking a few minutes to check-in at the beginning of the course with your students – asking them what their expectations are for the course – you can make the whole course positive and fulfilling for students and meet both your goals and theirs.

**Objectives** are not the same as goals. They are quantified and time-delineated. Objectives are related to specific sets of knowledge or skills the student will have achieved at the end of the course. The objectives form the course content. When students have achieved a series of related objective, they will have achieved a goal. <sup>29</sup>

After you have defined your goals and objectives you can estimate how much material to cover in the course. Although there are several ways to arrange your material, you will have material at three levels of importance:

- > **Need to know** information (essential for students to know),
- > Important to know information.
- Nice to know information (material which you can leave out if you are experiencing time constraints).

There are different ways to organize the content of your course:

- > Simple to complex: This arrangement allows students to learn and master the simpler ideas or skills prior to moving on to the more complex ones.
- ➤ **General to specific:** Your course content is presented first in general concepts and then is broken down to more specific topics.
- > **Specific to general:** You introduce several specific items which students can master and then students can begin to generalize from their experience.

- ➤ Concrete to abstract: Sometimes your students will find it easier to understand new material if concrete content is given first, e.g. actual physical observations and skills.
- ➤ **Chronological:** With this method, your course content shows the successive relationships of one event to another, e.g. cause and effect relationships.

You will decide the sequencing based on the subject you are teaching, the learning styles of your students, and your teaching priorities. <sup>30</sup>

# Sample Course Plan or Syllabus: 31

What is a course plan or course syllabus?

The sample course plan below shows examples of headings. *Check with your department* to see if there is a course plan in use. A content heading is given as an **example** below <sup>32</sup>:

Content Heading:	Instructional objectives: The student will be able to:	Instructional Techniques:	Testing & Assessment methods:	Estimated Time:
Safe Work Practices	1) Identify common hazards in the workplace.			
	2) Identify hazards related to confined work entry.			
	3) Identify personal protective equipment and first aid certification for plumbers.			
	4) Identify fire hazards and methods of fire prevention.			
	5) Describe application of the Workers' Compensation Act.			
	6) Demonstrate an ability to locate and interpret sections of the Occupational Health and Safety Act, General Safety Regulations, as they apply to plumbing.			

Notice in the example above that instructional objectives begin with concrete verbs:

- ✓ Identify
- ✓ Describe
- ✓ Demonstrate

As the instructor, you can gauge your students' ability to achieve these instructional objectives because they lend themselves to **measurement**. Examples of verbs which do **not** lend themselves to measurement are: *know, be aware of* and *understand*. Think about how you are going to measure or assess your students' knowledge and skills.

#### Tip:

As you are writing your instructional objectives, using verbs which lend themselves to measurement will make it easier for you to develop testing and assessment methods for your course.

Once you have completed an entire Course Outline, you are ready to break the course down into each session, learning block, module, or class hour. The next section, Lesson Planning, will give you ideas and tips on how to plan each session.

# 4.2 Lesson Planning



#### How to Develop a Lesson Plan

You can think of a lesson plan as a short story, with a beginning and an ending. Or you can think of it as an essay, with an introduction, body and conclusion. Try to make each lesson a neat unit, so that it is easy for your students to remember the material.

Create a worksheet or **lesson plan** for each class, session, or block of learning. Give each session or section a title, even if just for your own reference. This brings focus to the class and gives it a separate identity from other classes.

There are many different lesson plan templates available. Try using the following one, or customise it to meet your needs.

# Sample Lesson Plan <sup>33</sup>

Goal of Lesson:		Resources	Time
Learning Outcomes:			
Bridge –in (Motivation):			
Pre-Test:			
116-1631.			
Instructor's Activities	Time	Students' Activities	Time
Post-Test/Evaluation:			
Pridge out:			
Bridge-out:			

## **Instructional Techniques**

When you are preparing your lesson plan, you are planning not only **what** content you want to deliver in what amount of time, but also **how** you want to deliver the content. Delivery of the content is referred to as instructional technique. Here is a large selection of instructional techniques to consider. <sup>34</sup>

Which ones would be appropriate for your class?

- Assignment
- Audiovisual material
- Brainstorming
- Buzz groups
- Case studies
- Clinic
- Class communication teams
- Computer assisted learning
- Cooperative learning
- Debate
- Demonstration
- Discussion groups
- Drill and practice
- o DVD/film
- Exhibit
- Experiments
- Field trip
- o Forum
- Group work
- Guest speaker
- Handouts
- Homework
- Individualized instruction

- Information brief
- Inquiry
- Journal writing
- Lab instruction
- Language lab
- Lecture
- Library research
- Listening teams
- o Panel discussion
- Practicum experience
- Problem solving
- o Project
- o Questioning
- Role play
- o Seminar
- Shop instruction and practice
- Short report
- Simulation
- Study guide
- Symposium
- Term paper
- Textbooks
- Workshop

In this guide, we will take a look at three of the instructional techniques listed above: **lecture**, **discussion groups**, and **cooperative learning**.

#### Lecture

The lecture is the most frequently used instructional technique. Although you have probably attended some lectures which put you to sleep, if the lecture is used appropriately, it can be a very effective instructional technique.

When should you use the lecture method? You can use it when:

- ✓ You want to impart some information, or give instructions or details which the students could not find elsewhere;
- ✓ You want to present and organize the material in a certain way, or for a specific purpose:
- ✓ Student involvement in the class is not necessary to achieve your instructional objectives. 35

What makes a good lecture? These steps will help you develop an engaging lecture:

- Plan the lecture in advance
- Establish objectives for the class and ensure that your lecture meets them. Give the central theme or concept of the class and present the objectives to your students at the beginning of the lecture. Tell your students why the topic to be discussed is important.
- > Be organized and organize the material appropriately.
- Make eye contact with your students; move around if you can; use gestures.
- > Be loud and clear and ensure everyone can hear and understand your lecture.
- > Enliven your lecture with concrete examples, demonstrations, personal anecdotes, or references to current events.
- Capture interest at the beginning of the lecture with a question, a powerful or popular quote, or a startling statistic.
- > Build suspense into your presentation as a way to maintain class attention.
- Vary teaching methods and try not to lecture for the entire class period.
- > Summarize the main points at the end of every major section of your lecture.
- > Summarize the entire lecture, reinforce and repeat the points you want to emphasize.
- ➤ Give a look ahead to the next session. <sup>36</sup>

"Tell them what you are going to tell them; tell them; and tell them what you've told them."

(British Army saying)

# **Let's Discuss Discussion Groups**



**True or false?** Discussion appeals to those who prefer the Reflective Observation style of learning.

Classroom group discussion is a great way to involve your students and integrate learner centred instruction into your course.

Tips for planning discussion groups:

✓ Establish a clear objective for the discussion (e.g. solve a problem).

- ✓ Divide the class into groups of three to six students -- small enough for each student in the group to talk.
- ✓ Try giving one student in each group the responsibility for timekeeping, recording and reporting the outcome of the discussion to the class as a whole. (You can refer to this role as "The Recorder"... or ask, "Who will report back to the class?")

✓ Don't allow a handful of students to dominate the discussion. <sup>37</sup>

Here are four types of group discussions:

Brainstorming Session: A brainstorming session is an excellent way to generate discussion topics, encourage creative thinking and create a springboard for discussion.

Group Discussion: Each group discusses the same question or questions and then reports back to the whole class. This format may develop into a debate.

Debate Discussion: This format is ideal for controversial issues where participants can take a "pro" or "con" stand. Ensure equal time is given to each side and consider the measure of sensitivity necessary for the discussion.

Buzz Groups: Give each group a different question or set of questions to consider. Encourage students to question other groups when they report back. This is a good way to show students they can learn from each other. <sup>38</sup>

## Cooperative Learning <sup>39</sup>



In Chapter One, Section 1.3, Diversity, you saw a tip which referred to Cooperative Learning. The tip suggested that Cooperative Learning is a useful teaching strategy to use when you have diverse students. This strategy responds to classroom **diversity** and has a positive impact on students whose voices may otherwise go unheard in the classroom.

What is Cooperative Learning? It's a strategy which **involves students** in established, sustained learning groups or teams. The group work is an *integral part* of, not an adjunct to, the achievement of the learning goals of the class. It fosters individual accountability in a context of group interdependence in which students discover information and teach that material to their group and perhaps to the class as a whole.

Cooperative learning balances interdependence with individual accountability. Instructions to the students are specific. Each group and each student within that group has a task to perform. In other words, each student must demonstrate his or her mastery of the subject and receive an individual grade.

Cooperative Learning **is structured and focussed** to make sure that learning is taking place. You choose the groups to reflect a diversity of viewpoints, abilities, gender, race, and other characteristics. The groups contain fewer than six students. If you create groups of four, then four students can also work in pairs.

This strategy **creates a learning community** involving students in a kind of interdependence whereby they are all working towards a common goal often with group members responsible for different aspects of the content and teaching it to other members of the group. In other words, the group's work is not complete until all its members have mastered the content.

Finally, it's **a sustained approach**, lasting longer than a 15 to 20 minute small group discussion. Because they are in the same group for a longer time, students experience greater continuity than in occasional small group situations.

Cooperative learning requires and enhances students' communication skills. The success of the group depends on the interaction of its members. Before cooperative learning can begin give your students the opportunity to learn some of the skills required for successful group interaction:

- Paraphrasing others' words to ensure and verify comprehension;
- Giving and receiving feedback;
- Allowing everyone to contribute ideas;
- Refraining from taking over the group or allowing another to do so.

The next chapter of this guide, Classroom Management, will discuss classroom set up as well as classroom management. It will look at how you can develop an effective classroom management strategy, and will give you some tips on how to deal with difficult behaviours.



# Chapter 5

# Classroom Management

In this chapter:

5.1 Establishing a Classroom Management Strategy

5.2 Tips for Dealing with Difficult Behaviors

# Before you start

- Put safety first and familiarize yourself with the College safety and evacuation procedures
- Set up your classroom so that it's comfortable for both you and your students
- Plan lab classes carefully
- Create a classroom management strategy

# 5. Classroom Management

# 5.1 Establishing a Classroom Management Strategy

Before the first day of class decide how you are going to set up the classroom, and how you are going to build a rapport with your students. You can approach this task by first establishing the physical environment, and then by developing a positive class atmosphere.

# Classroom Set-up 40

The physical environment of the classroom can affect a student's learning. What makes up the physical environment?

- Lighting
- Temperature
- Noise
- Furniture Layout
- Seeing and Hearing in the Classroom

**Tip:** Arrive early to familiarize yourself with the classroom, its lighting and its equipment. Set up the classroom the way you want it to be. Feel free to move tables around or push them aside to suit your instructional method. But ... return the classroom to the way you found it at the end of the class (assuming it was neat and tidy!)

**Lighting:** It's usually better to have more artificial light rather than too little artificial light. Sunlight or natural light can cause glare. Be sure that students can see your screen from all areas of the classroom with the light source you use. Most classrooms have several light switches, so that the lighting can be varied within the room.

**Temperature:** You may not have control over the temperature of the classroom if it is controlled from a central location, so suggest that the students wear layered clothing. If there is consensus among the students, external doors or windows can be opened or closed.

**Noise:** Check the level of internal classroom noise: pay attention to students talking among themselves during quiet working time or while you are lecturing. Noise can be distracting to other students.

**Furniture layout:** Different set-ups allow for different types of learning.

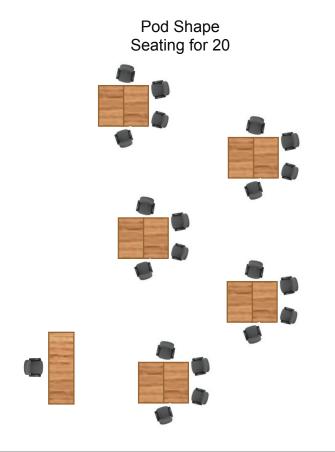
*Traditional:* You can arrange small tables in a row with two seats per desk, or create long rows of tables with chairs on one side of the row, facing you.

Boardroom: You can place rectangular tables up against each other to create one large rectangular table and arrange the seats around the perimeter. You can have a solid or hollow square. The set-up is suitable when the students need to act as one group.

*U-shaped or Flying 'V'*: You can set up the tables to create a large U shape or a Flying 'V' shape. The advantage of these set-ups is that it allows all students to be able to see you at all times. These arrangements facilitate interaction with your students, and make it easy to pass out handouts. Also, you can break your group into pairs or larger groups quite easily.

Horseshoe Shape Seating for 24

Flying V shape Seating for 16



Tables with three to five at each table: This is also called a "Pod" arrangement. If the room is large enough you can set up tables for groups of three to five students. Have the chairs face you, so that students do not have their backs to you.

Theatre: This set-up does not include tables. Chairs are arranged for viewing a lecture or visual aid. If you have a large number of students to fit into one classroom the theatre-style option may be your only option.

#### Seeing and Hearing in the Classroom

When you are using print, display, power point, or computer-based materials make sure they are easily readable.



Avoid text that is too small, too ornate, or too dense.

# Classroom Checklist: Can you students hear you? Is your voice loud enough? Is there a fan or computer competing with your voice? Can your students see you? Are the tables arranged so that everyone can see the board/screen/monitor? Are there any pillars or obstructions in the room that block the line of sight?

#### Tips for Teaching in the Lab



Being well-prepared is the best insurance that your laboratory class will run smoothly. 41 Teaching in the lab demands all -- and more -- of the skills necessary for teaching a lecture or discussion session.

If you're the lab instructor but not the course lecturer, you'll have to know the materials of the class, work closely with the course instructor, attend lectures and keep up with course readings.

If you teach both the lecture and the lab you will have a good idea of what your students know. Your lab students need to understand the objectives and methods of each lab demonstration.

Explain the kinds of analysis and evaluation the student is expected to make. It's the results of the lab -- whether correct or incorrect -- which lead to various interpretations.

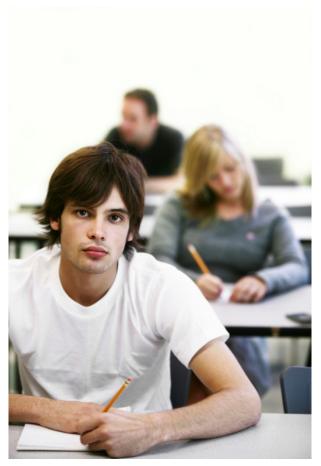
#### **Tips** for running a smooth lab:

- ✓ Prepare a brief lecture for the beginning of the lab. This lecture should help focus the students on the problem at hand and cover all of the essential points of the lab session.
- ✓ Prepare handouts, or use the blackboard, to provide the students with a clear overview of the demonstration.
- ✓ Review the lab from the previous week and establish some connections between that lab and the current one.
- ✓ Avoid reviewing a lab at the end of a period. You will no longer have their full attention. By then, many students may have left, some are still working, and still others are cleaning up. <sup>42</sup>

Familiarize yourself with where the supplies are stored and with the emergency and safety procedures. Labs also usually have some "do's" and "don'ts" in terms of where to return equipment, how to keep work areas clean, and how to dispose of various types of waste. 44



#### 5.2 Dealing with Difficult Classroom Behaviours



# **Encourage Positive Classroom Behaviour**

Teaching is full of opportunities, challenges, and rewards. Your students will likely be the most dynamic resource in your course. Students are generally hard-working, courteous, and well-behaved in class. They bring their own life experiences, knowledge, skills, and perspectives to the classroom. They have also most likely chosen to be in your class. Chapters One and Two of this guide give you tips on developing rapport with your students. Here are some additional tips to help you develop that rapport:

- Let students know they can ask questions anytime
- Encourage comments and questions, use open-ended questions
- Acknowledge every comment or contribution
- Use students' names
- Involve students
- Make eye contact <sup>1</sup>

Prevention is the best remedy for problem behaviours.

Occasionally, you may find yourself faced with a student whose behavior threatens to sidetrack or disrupt the course. It may be behavior which is distracting or intentionally disruptive. Either way, *you need to maintain control in the classroom*. The Center for Teaching Excellence at the University of South Carolina has published seven tips to stay on top of classroom distractions and disruptions: 43

1. **Establish standards at the beginning of the course** by defining expectations in the course syllabus and by reviewing those expectations on the first day.

"I show students on the first day of class that I respect their ability to govern themselves, by asking them as a group to decide what our guidelines for 'respect in the classroom' will be."

#### Chandra McCann

2. **Make it clear that class disturbance of any kind is unacceptable**. These activities disturb other students and undermine learning. Types of undesirable activities include: sleeping, coming in late, reading newspapers, listening to music, text-messaging, talking, doing other homework, and so on. Let the student know that you

recognize he or she is not engaged in the class. If that doesn't stop the behaviour you might direct a question to the student or speak to the student after class. Don't ignore the student because that only encourages others to join in the unwanted behaviour.

3. **Take firm action early on** before your authority is undermined. If you are able to identify problems before they get any bigger you will be able to maintain your control of the class.

Don't embarrass the student in class; it does little to change the student's behaviour and may affect other students as well. Speak to the student individually after class and ask the individual to adjust his or her behaviour.

- 4. Communicate that the disturbance shows a disregard for classmates. You want your students to realize that when they are behaving in a disruptive way, they are showing disrespect for their peers, who want to learn. Emphasize the importance of being cooperative and considerate.
- 5. Recognize that one student dominating a discussion may be a distraction. If one student dominates a discussion, other students will tune-out if they feel the discussion is between you and one other student. Speak to this student after class and explain the value of involving the whole class.
- 6. **Keep an eye on students who commonly side-track a discussion**. Similarly, you might have a student who side-tracks the discussion by not responding to the topic or question at hand. This behaviour moves the class away from the intended content. The student may relate long personal stories which are not relevant. This student can also disrupt your class.

Formulate your questions carefully so that the answers relate directly to your topic. Do your best to bring the student back on-topic so that the rest of the class does not tune-out.

7. **Stop intentional offensive remarks immediately.** If a student makes an offensive remark – racist or sexist, for example – speak to the student immediately. Explain that the behaviour is unacceptable. If the behaviour is repeated, deal with it through college channels.

Here are some further suggestions <sup>44</sup> on how to deal with specific difficult behaviours:

#### Rambling

- Refocus attention by restating the relevant point.
- Ask how the topic relates to the current topic being discussed.
- Use visual aids; begin to write on the white board.
- Ask the student to summarize his or her main point.

#### Shyness or silence

- Change instructional strategies from group discussion to individual exercises.
- Give strong positive reinforcement for any contribution.
- Involve student directly by asking him or her a question.

Make eye contact.

#### Talkativeness

- Acknowledge comments made.
- · Give limited time to express viewpoint.
- Give the person individual attention during breaks.
- Say, "That's an interesting point. Let's see what other people think."

#### Sharpshooting – trying to shoot you down or trip you up

- Admit you do not know the answer and redirect the question to the group.
- Acknowledge that this is a joint learning experience.
- Ignore the behaviour.

#### Heckling

- Redirect question to group.
- · Recognize participant's feelings and move on.
- Acknowledge positive points.
- Say, "I appreciate your comments but I'd like to hear from others."

#### Grandstanding

- Say, "You're entitled to your opinions, but we have to move on..." or
- "Can you restate that as a question?" or
- "We'd like to hear more about that if there is time after class."

#### **Overt Hostility**

- Realize that the root of hostility is often fear.
- Respond to fear, not hostility.
- Remain calm.
- Avoid losing your temper.
- Talk to the student privately during a break.

#### Griping

- Validate the student's point.
- Indicate that you'll discuss the problem with the student privately.
- Indicate time pressure.

#### Side conversations

- Ask talkers if they would like to share their ideas
- Casually move toward to those talking.
- Make eye contact with the side talkers.
- Stop and wait.



"Keep calm and carry on," propaganda poster produced by the British Government in 1939.<sup>47</sup>



# Chapter 6

# Learner Assessment

In this chapter:

6.1 Strategies to Appropriately Measure Learning

6.2 Designing a Learning Assessment Plan

# Before you start

• Differentiate between assessment and evaluation.

"Assessment is often equated and confused with evaluation, but the two concepts are different. Assessment is used to determine what a student knows or can do, while evaluation is used to determine the worth or value of a course or program. Assessment data effects student advancement, placement, and grades, as well as decisions about instructional strategies and curriculum. Evaluations often utilize assessment data along with other resources to make decisions about revising, adopting, or rejecting a course or program."

- Keep in mind that a limited number of heavily-weighted assessments can be very stressful for the student.
- Think about additional ways of assessing your students' mastery of skills and knowledge besides summative assessments, for example, final exams.
- Remember that the results of student assessments can also form an evaluation of the effectiveness of your teaching strategies.

#### 6. Learner Assessment

One of your most important responsibilities as an instructor is to **prepare your students for tests and examinations**. This starts by informing them, at the beginning of the course the tests and assessments that will be given, when they will be given, and the criteria upon which the students will be evaluated.

Testing and assessment will:

- ✓ Reveal to your students their areas of strength;
- ✓ Reveal to you, the instructor, the students' progress;
- ✓ Provide motivation for the students;
- ✓ Help you evaluate your teaching;
- ✓ Provide a basis upon which to determine grades;
- ✓ Evaluate students in terms of their professional and career goals. 45

#### 6.1 Strategies to Appropriately Measure Learning

"Over the past two decades, new ideas concerning student assessment have emerged. The need for summative assessments, where students' mastery of skills and knowledge are evaluated, is generally recognized and valued. But it has been proposed that this form of assessment may, in fact, not be related to promoting meaningful learning. Rather, it has been posited that assessment for learning is more effective at developing a culture of student learners who are intrinsically motivated and self-regulating. Assessment for learning or formative assessment is any activity which provides feedback to a student about their success in achieving certain learner outcomes or which provides feedback to the instructor about the effectiveness of their teaching strategies. This form of assessment manifests itself, for example, as feedback from both instructors and students during classroom discussions, as feedback form the results of clicker questions posed during the class, or as feedback from the results of low-stakes online homework questions." <sup>46</sup>

In Chapter 4 of this guide, you read about course planning and lesson planning. Ludwig and others (2011) argue that you should make explicit how you are going to assess your students' learning right up front in your course syllabus. <sup>47</sup> The authors suggest that the syllabus should address three core principles:

- 1. Clearly defined and measurable learning objectives
- 2. An explicit statement of how students can use feedback mechanisms built into the course to monitor their learning
- 3. An explicit statement of how the instructor can use feedback mechanisms to improve learning and teaching

**Tip:** As mentioned on page 21 in this Guide, when you write your instructional objectives begin with concrete verbs, such as:

- ✓ Identify
- ✓ Describe
- ✓ Demonstrate

As the instructor you can gauge your students' ability to achieve these instructional objectives because they lend themselves to **measurement**. Examples of verbs which do **not** lend themselves to measurement are: *know, be aware of* and *understand*. Think about how you are going to measure or assess your students' knowledge and skills.



#### Your Students will be happy!

"Happy" might be an overstatement, but your students will appreciate it if you prepare the course plan or syllabus with the assessment methods included --- assignments, quizzes, projects, papers and final exams.

Finally, keep in mind that **test anxiety** is a very real phenomenon for some students. If you detect that one of your students is experiencing test anxiety, you could refer him or her to a campus counsellor. The names of the college's campus counsellors are listed in Chapter Two of this Guide. There are many resources available to help students minimize the effects of test anxiety.

"As the instructor, it is my role to help guide (the students) in setting realistic expectations and to provide them with the tools they need to reach their set goals".

Chandra McCann

#### 6.2 Designing a Learning Assessment Plan

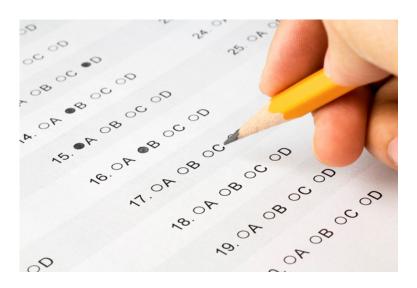
#### **Review Course Content**

Go through your course syllabus. What content needs to be tested? Look at your course content. What material have you classified as *need to know, important to know* and *nice to know*? Base your testing and assessment methods primarily on need to know material and secondarily on important to know material.

#### **Decide What Question Formats to Use**

What question formats do you have available to you? There are many to choose from. The chart below <sup>48</sup> lists some question formats and lists advantages and disadvantages of each method. As a framework for developing your test items refer to the six levels in Bloom's Taxonomy (knowledge or recall, comprehension, application, analysis, synthesis, evaluation) described in Chapter Two,.

Question Format	Advantages	Disadvantages
Essay	<ul> <li>In-depth coverage of material</li> <li>Quick and simple to prepare</li> <li>Allows maximum utilization of student capabilities in responding</li> <li>Easily changed from class to class</li> </ul>	<ul> <li>Restrictive in breadth of subject matter</li> <li>Time consuming for students</li> <li>Weights specific part of course too heavily</li> <li>Tendency to lean towards subjectivity in evaluation</li> <li>Burden of spelling, vocabulary and grammar upon student</li> <li>Difficult to grade</li> </ul>
Multiple Choice	<ul> <li>Covers a broad range of content in a short period of time</li> <li>Measures ability to recognize responses rather than recall facts</li> <li>More valid than True/False tests</li> <li>Students can be tested for analysis and synthesis</li> <li>Easy to grade</li> </ul>	<ul> <li>Tendency to construct responses for knowledge only</li> <li>Questions are time consuming and difficult to develop</li> <li>Provides opportunity for guessing</li> <li>Relies primarily upon recall and memory</li> </ul>
Recall	<ul> <li>Simple to grade and construct</li> <li>Addresses numerous areas in a broad field of content</li> <li>Requires specific recall rather than a guess</li> </ul>	<ul> <li>Time consuming for students if they have a mental block</li> <li>Subjectivity in grading similar responses</li> <li>Nearly impossible to measure analysis and synthesis of material</li> </ul>
True/False	<ul> <li>Ability to ask a large number of diverse questions</li> <li>Simple to develop</li> <li>Valid of only two possible answers</li> <li>Non-threatening and familiar to students</li> <li>Easy to score</li> </ul>	<ul> <li>Encourages guessing</li> <li>Difficult to construct brief, complete statements</li> <li>Grading weight equal for minor as well as significant points</li> <li>Not appropriate for elaboration and discussion</li> <li>Tests the lowest level of knowledge</li> <li>Typically low in validity and reliability</li> </ul>



#### Clearly Communicate the Grading Criteria to your students

It's important to develop a sense of academic standards. Explain them at the beginning of the course and apply them consistently throughout the term. Here are five guidelines you can follow when designing your assessment plan:

**1. Communicate criteria**. Advise students of the grading criteria at the first session. Below is a sample *grading rubric*. You might present a rubric such as this to your students on the first day of class.

#### **Sample Grading Rubric:**

Assignment: Develop a learner-centred assessment plan for your course. Your assignment will be evaluated based on the following criteria:

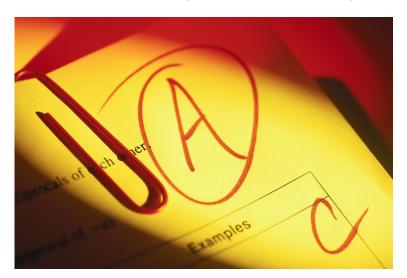
Criteria	Mark
Outcomes/Objectives Outcomes are clearly delineated and provide a thorough framework for achieving the goal(s) of the assignment.	/3
Assessments Assessments clearly match up with learning objectives. Assessments are varied in terms of learning styles, types, and learner-centredness. Assessment instructions are clear.	/6
Criteria and Weight Criteria for the assignment are clearly broken down. Weighting accurately reflects importance of assignment for measuring achievement of outcomes.	/3
Learner-Centred Clear explanation of how the assignment is learner-centred.	/3
TOTAL	/15

**2. Include criteria other than test scores.** If it's important for students to communicate or express ideas, then class participation should be a part of the grading criteria. If a project or lab demonstration is part of the course, explain what their values will be.

- **3. Avoid irrelevant factors**. It may not be wise to include attendance and tardiness. Many experienced instructors feel that if students possess the knowledge and show they have reached the objectives of the course, they should be evaluated accordingly.
- **4. Assign weights carefully.** Assign weights according to their importance in fulfilling the learning objectives of the course. Students appreciate knowing the weights assigned to each assessment method. Here's an example:

	Participation in class	10
	Assignment #1	10
$\triangleright$	Group project	10
	Mid-term	20
$\triangleright$	Essay	10
$\triangleright$	Assignment #2	10
$\triangleright$	Final exam	30
То	tal	100%

**5. Grade students on their own achievements, not those of other students.** Grading should be based upon criteria of the course and not upon other students' scores. Grading on a curve distributes all students on a curve, determining that a certain percentage of students will receive A's, B's, C's and so on. This system places students in competition with each other. **Criterion-based grading evaluates each student independent of other students.** If all students reach the objectives of the course they should all receive passing grades.<sup>49</sup>



You've created a course syllabus, you've developed your lesson plans, and you've designed a learner assessment plan. What's left to do?

In terms of course planning, the final step is to create a course evaluation plan so that you will have a basis for improving your course each time you teach it. The next chapter will give you some tips in how to evaluate your course.



# Chapter 7

# Instructional Development

In this chapter:

7.1 Designing a Course Evaluation Plan
7.2 Strategies and Resources for
Developing Instructional Skills
7.3 The Institute for Learning and Teaching (ILT)
7.4 Summary

# Before you start

- Review the differences between assessment and evaluation (see Chapter Six)
- Reflect on your reasons and motivations for becoming a college teacher
- Think about what, in your opinion, constitutes good teaching
- Decide how you are going to approach your professional development. Will you create a portfolio?
   Will you assemble a set of reference materials? Will you take a course or series of courses?

#### 7. Instructional Development

#### 7.1 Designing a Course Evaluation Plan

There are two kinds of evaluation: summative evaluation and formative evaluation.

**Summative evaluation** is conducted at the end of a course. It sums up, or determines, teaching effectiveness. It focuses on assessing performance and is usually initiated by the academic unit, not by the instructor.

**Formative evaluation** can be carried out at many points during the course. It leads to changes in teaching methods, style, organization, content, and so on. It is carried out in order to enhance teaching and improve learning. It gathers information from self, students, or peers. It is initiated and controlled by **you**, the instructor, in terms of content, timing, frequency, and follow-up.

#### In a nutshell:

Summative evaluation rates your performance and it's carried out by someone else; formative evaluation is used to enhance teaching and it's carried out by you, the instructor.

#### How to Design a Formative Course Evaluation Plan 50

The main benefit of formative evaluation is that it provides information that can help you modify your teaching, well before your students complete the summative, or end-of-course, evaluation questionnaires. **You** have control over how and when the evaluation occurs and from whom you are going to gather feedback.

There are three sources of information: yourself, your students, and your colleagues.

#### Information from Yourself

Some of the questions you can ask yourself as you reflect on your own teaching are:

- How do you teach?
- How do you begin and end each class?
- How do you emphasize the main points?
- When do you change the volume or rate of your speech?
- How do you encourage student participation?

You could organize a checklist in order to focus and create a framework for these questions, and complete the checklist at the end of each class.

#### **Sample Self-Evaluation Checklist**

How well did I		1	2	3	4	5	N/A	Comments
	Capture students' attention?							
	Summarize the main points of the class?							
	Keep the material relevant?							
	Build up student confidence?							
	Handle student questions and response?							
	Engage and involve students in the learning process?							
Notes for next class:								

5 = very well; 4 = well; 3 = average; 2 = satisfactory; 1 = not satisfactory

#### **Information from your Students**

It is advantageous to you, the instructor, to receive regular feedback from your students about your teaching. Here are three suggestions on ways to do that:

- Create a suggestion box where students can drop their ideas.
- Compile and distribute short forms of three to five questions which focus on aspects
  of your teaching you want to learn more about, or issues you have identified yourself
- One minute questionnaires to gauge a simple response for one or two questions in a short amount of time

#### **Sample Instructor Evaluation Questionnaire**

Please answer these questions honestly and constructively. Your responses will help me find out how the course is going so far and will give me some ideas on whether any changes are needed. Just circle the numbered response you most agree with and write comments in the space provided to explain your response. I appreciate your cooperation.

How useful are the chapter summaries I distribute at the end of each class?

1 2 3 4 5

Not useful

Comments:

How helpful are the lesson outlines I distribute at the beginning of class?

1 2 3 4 5
Not useful Useful
Comments:

How useful are class discussions in helping you to understand the concepts we are covering?

1 2 3 4 5
Not useful Useful
Comments:

How helpful are the notes I post on the Web?

1 2 3 4 5
Not useful Useful
Comments:

How useful is the extra readings list for each section?

1 2 3 4 5
Not useful Useful
Comments

#### **Examples** of other questions you might ask:

How useful was this lecture in explaining the topic of ----?

How useful are the handouts in clarifying the topic?

How useful do you find the group project assignment?

How useful are the sample exam questions I give at the end of each section?

How useful are my comments and corrections on your essays?

How clear is my presentation of formulas?

- ✓ Design the form so that it contains no more than five questions.
- ✓ Phrase the question so that it can be answered with a combination of scaled and short written responses.
- ✓ Allow yourself enough time to make suggested changes.
- ✓ Follow up with a second evaluation.
- ✓ Use the form only if you are willing to implement changes, or explain your decision not to implement changes.

#### The One-Minute Questionnaire

Try a one minute questionnaire if you've tried a new instructional technique, if you've covered a lot of difficult material, or if you want the students to reflect on what they've learned.

#### Sample One Minute Questionnaire 51

- 1. What was the most useful thing you learned in today's class?
- 2. What was the easiest thing about today's class?
- 3. What questions remain in your mind after today's class?

#### Information from your Colleagues

Peer observation is a voluntary confidential process that can benefit all teachers, new and not-so-new. A peer observation involves working with a peer to explore and enhance your teaching. Like the teachers they observe, peer observers are interested in teaching improvement. <sup>52</sup> Peer observers learn as much from the process as you do!

You can arrange for a **peer observation** through Okanagan College's Institute for Learning and Teaching (ILT). As explained on the ILT website <a href="http://illt.okanagan.bc.ca">http://illt.okanagan.bc.ca</a>:

"The ILT promotes and supports the practice of peer observation. The educational literature suggests that one of the most effective methods of enhancing the practice of learning and teaching is one where instructors exchange ideas and concerns in a trusting and respectful manner. This exchange is particularly valuable if the exchange involves instructors visiting one another's classrooms. A number of the representing fellows of the ILT have developed "lunch programs" which are intended to provide some incentive for instructors to observe one another and then to meet in an informal manner to discuss learning and teaching." <sup>53</sup>

More information on how to arrange for a peer observation is presented in Section 7.2 on the Institute for Learning and Teaching.

#### 7.2 Strategies and Resources for Developing Instructional Skills



#### **Teaching as Scholarly Activity**

Being a good teacher requires much more than knowing your way around campus, or memorizing the rules and regulations of the college.

Successful teaching demands a thorough understanding of the course material, a respect for students, a commitment to excellence, and recognition of the need to examine, assess, and adjust your own teaching philosophy as you go along. <sup>54</sup>

In his 1990 report for the Carnegie Institute, *Scholarship Reconsidered: Priorities of the Professoriate*, Dr. Ernest Boyer (1928 – 1995) challenged the views of faculty priorities and the meaning of scholarship. Boyer classified four kinds of scholarship: discovery, integration, application, and teaching. <sup>55</sup> He argued that scholarship was too often, and narrowly, interpreted as meaning only publication in refereed journals. Rather, he advocated that scholarship includes community and public service, integration, professional practice, and teaching. Deriving from Boyer's thinking, teaching is a scholarly activity. A teaching portfolio allows you to document that scholarship. <sup>56</sup>

It may be worth your while to read some articles or essays on teaching. One resource for a selection of essays on teaching – called "Essays on Teaching Excellence" -- can be found at

http://www.podnetwork.org/publications/teachingexcellence.htm

"Essays on Teaching Excellence is a series of eight short and succinct scholarly essays published, free of charge, by the POD network on an annual basis. The essays may be shared or distributed in print or electronic form as long as the POD Network and each essay's author are cited. The essays present innovative viewpoints on college and university instruction. Written in concise and non-technical language, and supported by research, the essays seek to assist instructors in reflecting upon, and refining, their practice of teaching to achieve the results they seek – students learning to the best of their abilities." <sup>57</sup>

**Tip:** Take some time to read and think about teaching excellence then write down some ideas that form the basis of your own teaching philosophy.

#### The Teaching Portfolio

Much more than a standard CV the teaching portfolio has become a powerful way for teachers to document their achievements for:

- Career advancement
- Teaching enhancement

Whereas the standard CV lists teaching responsibilities, the teaching portfolio includes information about how the teacher has:

- Incorporated new approaches into teaching
- Used technology
- > Linked his or her research to the classroom
- Learned from disappointments

What goes into a teaching portfolio? <sup>58</sup> In your teaching portfolio you would generally include:

- 1. Summary of teaching responsibilities
- 2. Reflective statement of teaching philosophy
- 3. Evidence of achievements

First, your **Summary of Teaching Responsibilities** provides the context for your teaching activities and accomplishments. In this section, you could examine your teaching roles as well as your clinical and advising responsibilities. Also, include all the classes for the period to which the portfolio applies. Finally, include all your teaching responsibilities for the same period.

Second, your **Statement of Teaching Philosophy** includes a reflective statement of your philosophy as it pertains to teaching.

"A **teaching philosophy** allows you to express your identity as a teacher. Your philosophy will include a statement of your teaching goals, approach, and strategies, and give a personal rationale related to your teaching. These statements should be descriptive and active and they must be malleable to allow for the growth that results from increased knowledge and years of experience in teaching." <sup>59</sup>

It's an important element of the portfolio, but don't be surprised if you find it difficult to write. Here are some questions to get you started:

- What excites you about your discipline?
- How do you motivate your students?
- Has your approach to teaching been guided by a role model?
- What kinds of activities take place in your class or lab?
- Which courses do you enjoy teaching?
- How do you give students feedback about their work?
- What have you learned from teaching?

This section provides the foundation for your approach to teaching, and the opportunity for you to introduce the evidence you have compiled. In this section, demonstrate that you reflect on what you do and that you learn from it. You can use headings in this section to organize it. Several sample Statements of Teaching Philosophy can be found in the University of Saskatchewan's Gwenna Moss Centre for Teaching Effectiveness at

#### http://www.usask.ca/gmcte/drupal/?q=node/189 60

Third, your section on **Evidence of Achievements** contains examples and evidence that support what you have described in your narrative. You can include course outlines, copies of assignments, student evaluations, comments from peers, or copies of presentations related to teaching. It sounds like a lot of work, but once you have assembled your Teaching Portfolio, you can add to it over the years of your teaching career.

#### **Build Your Own Reference Collection**

Your teaching reference collection might be a combination of hard and soft cover books, videotapes or DVDs, printed articles, other instructors' lesson plans and materials, and electronic resources. The important thing is to organize them well enough so you can find what you are looking for.

The ILT has a number of books available. See Appendix A of this Guide for a listing of ILT-recommended books.



#### Take a Course or Several Courses

Although reading and reflection is always good, live instruction has many advantages. You have the benefit of interacting with the instructor and with other students. You also have the added benefit of being able to add the course, or training, to your own teaching portfolio.

"Courses" on the practice of teaching can take many forms. This is just a partial list of formats:

- ✓ workshops
- √ seminars
- √ webinars
- ✓ lunch sessions
- √ talks

- √ demonstrations
- ✓ podcasts
- √ blogs
- √ YouTube videos
- ✓ conferences

Identify the areas of your teaching practice you would like to enhance and keep your eyes and ears open for learning opportunities. The next section will give you an example of what is available to you through the Institute for Learning and Teaching (ILT). You can also ask your colleagues and members of the ILT for their suggestions for learning opportunities.

#### 7.3 The Institute for Learning and Teaching (ILT)

#### **Brief history**

Okanagan College's Institute for Learning and Teaching (ILT) was formed in 2009. The ILT is a collection of faculty, instructors, administrators and staff who act to support the development of a culture at Okanagan College that empowers dialogue, builds trust, and supports collaboration among peers. The ILT operates through an innovative peer-led approach devoted to helping new and veteran employees reflect on, and enhance, their learning and teaching practices.<sup>61</sup>

Information in the following sections is from the ILT's site <a href="http://illt.okanagan.bc.ca/">http://illt.okanagan.bc.ca/</a> 62

#### **Guiding Principles**

The ILT is guided by the following principles:

- 1. Our practices are aligned with the mission, vision and values of Okanagan College.
- 2. Everyone in a learning-centred organization is a learner.
- 3. A learning-centred approach requires well-designed lessons and effective lesson delivery.
- 4. Informal communities of practice are an effective way to share knowledge and skills.
- 5. A learning-centred approach continually reviews its outcomes and assessment strategies.

#### **Key Directions**

The Institute aligns with the mission, vision, and values of Okanagan College, and assists the College in the goal of becoming a learning organization. The key directions of the institute are established and refined annually by a process of assessment and evaluation of the learning and teaching needs of our staff and students. The key directions are also shaped

by measuring our ability to achieve individual objectives, and include specific accountabilities and measurable outcomes.

After a substantial initial period of research and dialogue with the steering committee, and the completion of a college wide pre-assessment survey, the following key directions for the Institute were established:

#### 1. Culture of Leadership

By establishing the institute peer-led structure of eleven "Fellows" who represent eleven areas of the college the Institute will build a culture of leadership, trust, and integrity through collaboration with the "Fellows" and their communities of practice.

#### 2. Communities of Practice

The Institute will establish a framework to encourage and support groups of self-directed people who share a common interest and will identify opportunities for collaboration and dialogue between these "Communities of Practice."

#### 3. Dialogue

Supporting multiple ways for communities of practice to communicate and share their learning will be a key direction for the Institute. Opportunities for face to face, and electronic communication methods for dialogue on learning and teaching will be explored. The Institute has established a wide variety of communication models including blogs, a Facebook page, Linked-in, a website, regular meetings, and a newsletter called "Enhancing the Practice."

#### 4. Professional Development

A focus on providing training, leadership, and mentorship will be a high priority for the Institute. The Institute has established a college-wide "Lunch and Learn Series" that is currently providing educational sessions that offer instructors, students, and community members a new perspective on a variety of educational topics. In addition an Institute workshop series is providing focused opportunities for professional development at all campuses in targeted areas of need for instructors, professors, and students.

#### 5. Peer Observation

Peer observation or peer appreciation has been identified as a powerful educational tool for sharing and enhancing learning and teaching skills. While this is a sensitive area for some instructors the new focus provided by the Institute in this area has led to a substantial increase in the number of classroom visits, and follow up discussions that are now taking place. A number of blogs are dedicated to this practice and the Institute fellows have set up a framework of programs and guidelines to encourage and enhance this activity.

#### 6. Recognition

At Okanagan College there are many excellent examples of leadership in the areas of learning and teaching. The Institute would like to recognize and celebrate this achievement. This will bring about many positive results and the intention is that what is recognised is more likely to be repeated. A celebration and recognition of excellence is proposed to happen in several ways including an annual award ceremony.

#### 7. Creative and Scholarly Activity

The connection between scholarly activity and the Institute is two-fold. Applied study is a key part of the underlying process that guides the initiatives taken by the Institute, and in turn through reflective practice, the Institute is well-positioned to contribute to the body of knowledge concerning learning and teaching. These scholarly contributions to the field of learning and teaching are manifesting in the form of workshops, presentations at conferences, and articles written for the Institute's newsletter, associated blog entries, and potential peer-reviewed journal articles.

#### 8. Learner-Centred Instructor Certificate

The ILT has developed an instructional program which is easy to access, and available to college employees at no charge. The program balances traditional notions of teacher development by including skill-based training sessions with the professional practice of evaluating the role of leadership, self-direction, reflection, self-knowledge, coaching, mentoring, learning community, and professionalism in actual work situations.

The ILT launched the **Learner-Centred Instructor Certificate** in the Fall of 2011. This 12-week, 60-hour program offered to Okanagan College employees is divided into six two-week courses, and participants work with their cohort both online and in person. The program is an interactive set of courses designed to engage the learners as they progress through the 12 weeks.

While ideal for an instructor new to teaching in a college environment, this course has much to offer seasoned practitioners who want to further develop their instructional skills. Each module challenges the learner through applied course activities to translate knowledge into action. Learners receive feedback and mentoring from the course facilitator which integrate and cement the key concepts of the module.

The six courses are:

- 1. Building a Learning-Centred Culture
- 2. Instructional Planning
- 3. Teaching Techniques
- 4. Multimedia and Technology
- 5. Learner Assessment and Course Evaluation
- 6. Instructor Evaluation and Development

Additionally, a transfer agreement between Okanagan College and Vancouver Community College is in place for courses in the Learner-Centred Instructor Certificate (LCIC) program. Graduates of Okanagan College's LCIC program will receive transfer credit for two courses in the Provincial Instructor Diploma program:

PIDP 3220 – Delivery of Instruction

Plus one of

PIDP 3250 – Instructional Strategies OR

PIDP 3260 - Professional Practice

For more information, or to register, please contact OC Distance Education at 250 862 5480

#### 7.4 Summary

This Teaching Guide has been presented in seven parts:

- 1. Adults as Learners
- 2. Teaching Adults
- 3. Multimedia and Technology
- 4. Instructional Planning
- 5. Classroom Management
- 6. Learner Assessment
- 7. Instructional Development

Chapters One and Two have given you food for thought about the **learner**. As a learner-centred institution Okanagan College supports this approach in all pedagogical practices. If you think of the learner first, you're not likely to go wrong.

Chapters Three and Four focussed on **content and method**. Chapter Three has described some technological tools you can use as instructional aids; Chapter Four has given you an approach to both course planning and lesson planning. Don't forget to check with your department to find out if the department has preferred course outline formats and lesson plan formats.

Chapters Five and Six focuses again on the **learner**. How do you bring out the best in your students? What can you do to maintain a positive classroom climate? What are the best ways to assess their learning? What is the current thinking on learner assessment?

Finally, Chapter Seven puts the focus back on **you**, the instructor. Most post-secondary institutions have centres for teaching effectiveness, or centres for the advancement of teaching and learning. The Institute for Learning and Teaching is one such example and provides you with an important resource to enhance and continue to develop your teaching effectiveness.

Add your own resources to this guide, and all the best of luck with your teaching!

#### **Endnotes**

http://www.usask.ca/gmcte/drupal/files/staff/ Teaching and Learning Guide for Instructors.pdf

<sup>&</sup>lt;sup>1</sup> David A. Kolb, *Learning Style Inventory Self Scoring Test and Interpretation Booklet* (Boston: McBer and Company, 1976).

<sup>&</sup>lt;sup>2</sup> University of Saskatchewan Gwenna Moss Centre for Teaching Effectiveness, *Teaching and learning guide for instructors.* (Saskatoon, SK: University of Saskatchewan, n.d.), 32. Retrieved from

<sup>&</sup>lt;sup>3</sup> Gloria Frender, *Learning to Learn, Revised edition*. (Nashville: Incentive Publishing, 2004), 26.

<sup>&</sup>lt;sup>4</sup> University of Saskatchewan, 34.

<sup>&</sup>lt;sup>5</sup> Howard E. Gardner, Frames of Mind: The Theory of Multiple Intelligences. (N.Y.: Basic Books, 1983).

<sup>&</sup>lt;sup>6</sup> Mark Chesler, "Teaching Well in the Diverse/Multicultural Classroom," excerpted from *Included in Sociology: Learning Climates That Cultivate Racial and Ethnic Diversity*, Edited by Jeffrey Chin, Catherine White Berheide and Dennis Rome. Merrifield, VA: American Association for Higher Education, 2002. *AAHEBulletin.com*, last modified 2008, http://www.aahea.org/bulletins/articles/sociology.htm

<sup>&</sup>lt;sup>7</sup> Cornell University Handbook for Teaching Assistants at Cornell, last modified August, 2007, <a href="http://www.clt.cornell.edu/campus/teach/grad/TA">http://www.clt.cornell.edu/campus/teach/grad/TA</a> Handbook.pdf

<sup>&</sup>lt;sup>8</sup> Selkirk College Guide for Continuing Education Instructors, 3-4, and <a href="http://en.wikibooks.org/wiki/The">http://en.wikibooks.org/wiki/The</a> Practice of Learning Theories/Adult Education/

<sup>&</sup>lt;sup>9</sup> Ibid. 12-13.

<sup>&</sup>lt;sup>10</sup> William S. Davenport, "A Study of the Relationship between Attendance and Grades of Three Business Law Classes at Broome Community College," 1990. (ERIC –EBSCOhost (accessed March 8, 2012).

<sup>&</sup>lt;sup>11</sup> University of Saskatchewan, 15-16.

<sup>&</sup>lt;sup>12</sup> University of Saskatchewan, 10-11.

<sup>&</sup>lt;sup>13</sup> Ibid., 9-10.

<sup>&</sup>lt;sup>14</sup> Ibid., 17-18.

<sup>&</sup>lt;sup>15</sup> Ibid., 20.

<sup>&</sup>lt;sup>16</sup> Used as per Creative Commons Licence, from <a href="http://www.edutechie.ws/2007/10/09/cone-of-experience-media/">http://www.edutechie.ws/2007/10/09/cone-of-experience-media/</a>

<sup>&</sup>lt;sup>17</sup> University of Saskatchewan, 16-17.

<sup>&</sup>lt;sup>18</sup> http://www.law.uchicago.edu/prospectives/lifeofthemind/socraticmethod accessed February 6 2012.

<sup>&</sup>lt;sup>19</sup> The American Heritage Dictionary of the English Language, 4<sup>th</sup> ed., s.v. "Socratic Method."

<sup>&</sup>lt;sup>20</sup> Rob Kjarsgaard and Carl Doige, *Grabbing Students by the Brain: Developing Questioning Techniques* (Vernon: Okanagan College Workshop, 2011).

- <sup>21</sup> University of Saskatchewan, 42.
- <sup>22</sup> Ibid., 43.
- <sup>23</sup> Ibid., 44, adapted from Leanna Harshaw, "101 Top Tips" in *Presentations*, December 1995. 7-26.
- <sup>24</sup> Tideway School, *A Short Guide to Learning Platforms for Busy Teachers*, last modified February 2, 2012 <a href="http://www.learningplatforms.info/">http://www.learningplatforms.info/</a>
- <sup>25</sup> University of Saskatchewan, 45.
- <sup>26</sup> http://en.wikipedia.org/wiki/Moodle accessed February 16, 2012.
- <sup>27</sup> http://moodle.org accessed March 1, 2012.
- <sup>28</sup> Selkirk College Continuing Education Manual, 7.
- <sup>29</sup> Ibid., 7-8.
- <sup>30</sup> Ibid., 8-9.
- <sup>31</sup> Adapted from ADHE Adult and Higher Education 329, Designing Short Courses and Seminars, University of British Columbia.
- <sup>32</sup> Example taken from Southern Alberta Institute of Technology School of Construction Plumber Trade Course Outline.
- <sup>33</sup> Contributed by Chandra McCann, Okanagan College Institute for Learning and Teaching Fellow.
- <sup>34</sup> Selkirk College Continuing Education Manual, 12.
- <sup>35</sup> University of Saskatchewan, 35.
- <sup>36</sup> Adapted from Selkirk College, 10 and University of Saskatchewan, 36.
- <sup>37</sup> Ibid
- <sup>38</sup> Ibid., 37.
- <sup>39</sup> University of Saskatchewan, 38-39.
- <sup>40</sup> Selkirk Continuing Education Instructors' Manual, 15-17.
- <sup>41</sup> University of Saskatchewan, 24.
- <sup>42</sup> Smooth Lab: 7 Ways to Make Your Lab Run Smoothly, Center for Teaching Excellence, University of South Carolina, accessed February 28, 2012, <a href="http://www.sc.edu/cte">http://www.sc.edu/cte</a>
- <sup>43</sup> University of South Carolina, Center for Teaching Excellence, accessed February 28, 2012, http://www.sc.edu/cte/guide/classdistractions/index.shtml#establishstandards
- <sup>44</sup>Selkirk College Continuing Education Instructors' Manual, 18-20.
- <sup>45</sup> University of Saskatchewan, 54.
- <sup>46</sup> Carl Doige, "Assessment for Learning," *Enhancing the Practice of Learning and Teaching*, Okanagan College Institute for Learning and Teaching 2, no. 2, )2011): 1.

<sup>&</sup>lt;sup>47</sup> M.A. Ludwig, A.E. Bentz and H.Fynewever, "Your syllabus should set the stage for assessment for learning", *Journal of College Science Teaching*, 40, no.4 (2011):, 20-23.

<sup>&</sup>lt;sup>48</sup> University of Saskatchewan, 54-55.

<sup>&</sup>lt;sup>49</sup> Ibid., 56.

<sup>&</sup>lt;sup>50</sup> University of Saskatchewan, 58 – 61.

<sup>&</sup>lt;sup>51</sup> K. Patricia Cross and Thomas A. Angelo, *Classroom Assessment Techniques, Second Edition* (San Francisco, Jossey-Bass, 1993) as quoted in University of Saskatchewan, 62.

<sup>&</sup>lt;sup>52</sup> University of Saskatchewan, 62

<sup>&</sup>lt;sup>53</sup> Okanagan College Institute for Learning and Teaching, www.okanagan.bc.ca/illt/ accessed March 1, 2012.

<sup>&</sup>lt;sup>54</sup> The Teaching Assistant Handbook accessed at <a href="http://taproject.rutgers.edu/publications/TAPhandbook.php3#top">http://taproject.rutgers.edu/publications/TAPhandbook.php3#top</a> on March 5 2012

<sup>&</sup>lt;sup>55</sup> Wikipedia, "Ernest L. Boyer," http://en.wikipedia.org/wiki/Ernest L. Boyer accessed on March 6 2012

<sup>&</sup>lt;sup>56</sup> University of Saskatchewan, 64.

<sup>57</sup> http://www.podnetwork.org/publications/teachingexcellence.htm accessed March 5 2012

<sup>&</sup>lt;sup>58</sup> University of Saskatchewan, 64-65.

<sup>&</sup>lt;sup>59</sup> Ibid., 1.

<sup>&</sup>lt;sup>60</sup> University of Saskatchewan Gwenna Moss Centre for Teaching Excellence, <a href="http://www.usask.ca/gmcte/drupal/?q=node/189">http://www.usask.ca/gmcte/drupal/?q=node/189</a> accessed March 7, 2012.

<sup>&</sup>lt;sup>61</sup> Okanagan College Institute for Learning and Teaching, http://illt.okanagan.bc.ca/ accessed March 7, 2012.

<sup>&</sup>lt;sup>62</sup> Okanagan College Institute for Learning and Teaching, <a href="www.okanagan.bc.ca/illt/">www.okanagan.bc.ca/illt/</a> accessed March 7, 2012.

### Appendix A: ILT Learning and Teaching Books

Please check OC Library's **OCtopus** Search Engine on the <u>Library Webpage</u> to locate these titles:

Bain, K. (2004). What the best college teachers do. Cambridge, Mass.: Harvard University Press.

LB 2331 .B34 2004

Coates, J. (2007). Generational learning styles. River Falls, Wis.: LERN Books.

LB 1060 .C585 2007

Draves, W. (1995). *Energizing the learning environment*. Manhattan, Kan.: Learning Resources Network.

LC 5251 .D73 1995

Draves, W. (1997). *How to teach adults.* Manhattan, Kan.: Learning Resources Network. LC 5215 .D73 1997

Filene, P. (2005). *The joy of teaching: A practical guide for new college teachers*. Chapel Hill, N.C.: The University of North Carolina Press.

LB 2331 .F493 2005

Gross, D. (1993). Tools for teaching. San Francisco: Jossey-Bass.

LB 2331 .D37 2009

Palmer, P. (2007). Courage to teach guide for reflection and renewal. San

Francisco: Jossey-Bass.

LB 1775 .P257 2007

Renner, P. (1983). *The art of teaching adults: How to become an exceptional instructor and facilitator.* Vancouver, BC: Training Associates.

LC 5225 .T4 R45 1993

Weimer, M. (2002). Learner centered teaching: Five key changes to practice. San

Francisco: Jossey-Bass.

LB 2331 .W9 2002

#### **Provincial Instructor Diploma Program (PIDP) Titles**

Angelo, T. (2005). Classroom assessment techniques: A handbook for college teachers (2nd ed.). Chichester, U.K.: John Wiley & Sons.

Barkley, E. (2010). Student engagement techniques: A handbook for college faculty. San Francisco: Jossey-Bass.

Brookfield, S. (2009). The skilful teacher: On technique, trust, and responsiveness in the classroom. San Francisco: Jossey-Bass.

Fenwick, T. (2009). *The art of evaluation: A resource for educators and trainer* (2nd ed.). Toronto: Thompson Educational Pub. LB 3051 .F46 2009

Merriam, S. (2007). *Learning in adulthood: A comprehensive guide* (3rd ed.). San Francisco: Jossey-Bass.

#### **Endnotes**

- 1. Adapted from Selkirk College Continuing Education Instructors' Manual, 3. Used with permission and cooperation of Selkirk College.
- 2. David A. Kolb, *Learning Style Inventory Self Scoring Test and Interpretation Booklet* (Boston: McBer and Company, 1976).
- 3.University of Saskatchewan Gwenna Moss Centre for Teaching Effectiveness, *Teaching and Learning Guide for Instructors* (Saskatoon, SK: University of Saskatchewan, n.d.), 32. Retrieved from <a href="http://www.usask.ca/gmcte/drupal/files/staff/\_Teaching\_and\_Learning\_Guide\_for\_Instructors.pdf">http://www.usask.ca/gmcte/drupal/files/staff/\_Teaching\_and\_Learning\_Guide\_for\_Instructors.pdf</a>.
- 4. Gloria Frender, Learning to Learn, rev.ed.(Nashville: Incentive Publishing, 2004), 26.
- 5. University of Saskatchewan, 34.
- 6. Howard E. Gardner, *Frames of Mind: The Theory of Multiple Intelligence* (New York: Basic Books, 1983).
- 7. Mark Chesler, "Teaching Well in the Diverse/Multicultural Classroom" excerpted from *Included in Sociology: Learning Climates That Cultivate Racial and Ethnic Diversity*, Edited by Jeffrey Chin, Catherine White Berheide, and Dennis Rome. Merrifeld, VA: American Association for Higher Education, 2002. *AAHEBulletin.com*, last modified 2008, http://www.aahea.org/bulletins/articles/sociology.htm
- 8. Cornell University Handbook for Teaching Assistants at Cornell, last modified August, 2007, http://www.clt.cornell.edu/campus/teach/grad/TA\_Handbook.pdf.
- 9. University of Saskatchewan, 21-22.
- 10.Selkirk College Guide for Continuing Education Instructors, 3-4, and <a href="http://en.wikibooks.org/wiki/The">http://en.wikibooks.org/wiki/The</a> Practice of Learning Theories/Adult Education/
- 11. University of Saskatchewan, 10-11.
- 12. Ibid, 12-13.
- 13. William S. Davenport, "A Study of the Relationship Between Attendance and Grades of Three Business Law Classes at Broome Community College," 1990. ERIC, EBSCOhost (accessed March 8, 2012).
- 14. University of Saskatchewan, 15-16.
- 15. Ibid., 9-10.
- 16. Ibid., 17-18.
- 17. Ibid., 20.

- 18. Used as per Creative Commons Licence, from <a href="http://www.edutechie.ws/2007/10/09/cone-of-experience-media/">http://www.edutechie.ws/2007/10/09/cone-of-experience-media/</a>
- 19. Ibid., 16-17.
- 20, http://www.law.uchicago.edu/prospectives/lifeofthemind/socraticmethod accessed February 6 2012.
- 21, The American Heritage Dictionary of the English Language, 4<sup>th</sup> ed., s.v. "Socratic Method,"
- 22. Rob Kjarsgaard and Carl Doige, *Grabbing Students by the Brain: Developing Questioning Techniques.* (Vernon, BC: Okanagan College Workshop, 2011).
- 23. Ibid., 42.
- 24. Ibid., 43.
- 25. Ibid., 44. adapted from Leanna Harshaw, "101 Top Tips" in *Presentations*, December 1995. 7-26.
- 26. Tideway School, *A Short Guide to Learning Platforms for Busy Teachers,* last modified February 2, 2012, http://www.learningplatforms.info/.
- 27. University of Saskatchewan, 45.
- 28. http://en.wikipedia.org/wiki/Moodle accessed February 16 2012.
- 29. http://moodle.org accessed March 1 2012
- 30. Selkirk College Continuing Education Manual, 7.
- 31. Ibid., 7-8.
- 32. Ibid., 8-9.
- 33. Adapted from ADHE Adult and Higher Education 329, Designing Short Courses and Seminars, University of British Columbia.
- 34. Example taken from Southern Alberta Institute of Technology School of Construction Plumber Trade Course Outline.
- 35. Contributed by Chandra McCann, Okanagan College Institute for Learning and Teaching Fellow.
- 36. Selkirk College Continuing Education Manual, 12.
- 37. University of Saskatchewan, 35.

- 38. Adapted from Selkirk College, 10 and University of Saskatchewan, 36.
- 39. Ibid.
- 40. Ibid., 37.
- 41. University of Saskatchewan, 38-39.
- 42. Selkirk Continuing Education Instructors' Manual, 15-17.
- 43. University of Saskatchewan, 24.
- 44. Smooth Lab: 7 Ways to Make Your Lab Run Smoothly, Center for Teaching Excellence, University of South Carolina, accessed February 28, 2012, http://www.sc.edu/cte/guide/smoothlab/index.shtml.
- 45. University of Saskatchewan, 24.
- 46. "The Laboratory Section," *The Teaching Assistant Handbook* (New Jersey: Rutgers State University, n.d.), accessed March 5 2012,

http://taproject.rutgers.edu/publications/TAPhandbook.php3#lab.

- 47. University of South Carolina Center for Teaching Excellence, accessed February 28, 2012.http://www.sc.edu/cte/guide/classdistractions/index.shtml#establishstandards.
- 48. Selkirk College Continuing Education Instructors' Manual, 18-20.
- 49. University of Saskatchewan, 54.
- 50. Carl Doige, "Assessment for Learning," *Enhancing the Practice of Learning and Teaching: Okanagan College Institute for Learning and Teaching* 2, no. 2 (2011): 1.
- 51. M.A. Ludwig, A.E. Bentz and H. Fynewever, "Your Syllabus Should Set the Stage for Assessment for Learning", *Journal of College Science Teaching*40,no.4 (2011): 20-23.
- 52. University of Saskatchewan, 54-55.
- 53. Ibid., 56.
- 54. Ibid, 58 61.
- 55. Ibid, 62.
- 56. Ibid,, 62
- 57. www.okanagan.bc.ca/illt/ accessed March 1, 2012.
- 58. The Teaching Assistant Handbook accessed at <a href="http://taproject.rutgers.edu/publications/TAPhandbook.php3#top">http://taproject.rutgers.edu/publications/TAPhandbook.php3#top</a> on March 5 2012

- 59. http://en.wikipedia.org/wiki/Ernest\_L.\_Boyer accessed on March 6 2012
- 60. University of Saskatchewan, 64.
- 61. http://www.podnetwork.org/publications/teachingexcellence.htm accessed March 5 2012
- 62. University of Saskatchewan, 64-65.
- 63. Ibid., 1.
- 64. http://www.usask.ca/gmcte/drupal/?q=node/189accessed March 7, 2012.
- 65. http://www.okanagan.bc.ca/about/ILLT.html accessed March 7 2012.
- 66. www.okanagan.bc.ca/illt/accessed March 7, 2012.

#### References

American Heritage Dictionary of the English Language, 4th ed.

Chesler, Mark. (2008). "Teaching Well in the Diverse/Multicultural Classroom" excerpted from *Included in Sociology: Learning Climates That Cultivate Racial and Ethnic Diversity*, Edited by Jeffrey Chin, Catherine White Berheide, and Dennis Rome. Merrifeld, VA: American Association for Higher Education, 2002. *AAHEBulletin.com*, last modified 2008, http://www.aahea.org/bulletins/articles/sociology.htm

Cornell University Handbook for Teaching Assistants at Cornell, last modified August, 2007, http://www.clt.cornell.edu/campus/teach/grad/TA\_Handbook.pdf

Davenport, William S. (1990). "A Study of the Relationship Between Attendance and Grades of Three Business Law Classes at Broome Community College," ERIC, EBSCOhost

Frender, Gloria. (2004) Learning to Learn, rev.ed. Nashville: Incentive Publishing, 2004.

Gardner, Howard E. (1983) *Frames of Mind: The Theory of Multiple Intelligence*, New York: Basic Books.

Kjarsgaard, Rob and Doige, Carl. (2011). *Grabbing Students by the Brain: Developing Questioning Techniques*. Vernon, BC: Okanagan College Workshop.

Kolb, David A. (1976). *Learning Style Inventory Self Scoring Test and Interpretation Bookle* Boston: McBer and Company.

Selkirk College Continuing Education Instructors' Manual (n.d). Castlegar, BC: Selkirk College.

Southern Alberta Institute of Technology School of Construction Plumber Trade Course (n.d.). Calgary, Alberta: Southern Alberta Institute of Technology.

Tideway School, A Short Guide to Learning Platforms for Busy Teachers, last modified February 2, 2012, http://www.learningplatforms.info/

University of British Columbia, Adult and Higher Education Course 329, Designing Short Courses and Seminars.

University of Saskatchewan Gwenna Moss Centre for Teaching Effectiveness, *Teaching and Learning Guide for Instructors. (n.d.)*.Saskatoon, SK: University of Saskatchewan, <a href="http://www.usask.ca/gmcte/drupal/files/staff/\_Teaching\_and\_Learning\_Guide\_for\_Instructors.pdf">http://www.usask.ca/gmcte/drupal/files/staff/\_Teaching\_and\_Learning\_Guide\_for\_Instructors.pdf</a>.

University of South Carolina, Center for Teaching Excellence, University of South Carolina, <a href="http://www.sc.edu/cte/guide/smoothlab/index.shtml">http://www.sc.edu/cte/guide/smoothlab/index.shtml</a>.