

Instructor Development



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Instructor Development Lesson 1 - Purpose

Objectives

The learner will be able to:

- Understand the course contents, purpose and overall goals
- Explain course expectations
- Identify personal expectations
- List and contrast the differences between coach and mentor

The purpose of the Instructor Development (ID) program is to introduce new instructors to the core tenets of facilitating and mentoring so that they can become effective, dynamic instructors.

The goal of this ID program is to help you better understand how people learn, and how to apply strategies to ensure understanding and retention through an artful manner that is engaging and factual; a subtle dynamic interplay in a co-learning partnership between learner and facilitator.

It needs to be noted that upon completion of the ID program, the work has only begun. To become a skilled facilitator takes practice. Therefore a full mentorship program must accompany the ID program to support the ID candidates in achieving success. For some, the amount of time may be shorter than others, and for all, the learning never ends. It is for this reason that the length of mentoring is not set and should be left up to the mentor to establish on an individual basis. The mentoring program will be discussed further in subsequent chapters.

In delivering this course, the facilitator will teach by example. Adult educational principles will be used and participants will not only learn strategies, they will also observe and participate within those strategies. The goal is to change behaviours in a positive sense; to create better instructors. "Learning is a process that brings together cognitive, emotional, and environmental influences and experiences for acquiring, enhancing, or making changes in one's knowledge, skills, values and world views."¹ It is only through critical reflection where true learning can occur.

¹ Merriam, Cafarella, Baumgartner (2007) p. 277

Lesson Activity

In this lesson, there are two main reflection points to consider.

1. Effective Instructors rarely rely on lecture as their primary teaching method, and
2. A well-planned class will challenge learners to be engaged and take an active role in acquiring skills.

You may have come to this class with a desire for specific goals/outcomes. Please list five of your goals below.

1. _____

2. _____

3. _____

4. _____

5. _____

Please list below, the qualities of the WORST instructor you ever had.

This exercise was designed so that you would reflect on your motivation, analyse your experience, and apply that experience to your initial beliefs on your goals for this course. After you have had a chance to reflect on instructor qualities, review your initial goals and note any potential revisions below.

1. _____

2. _____

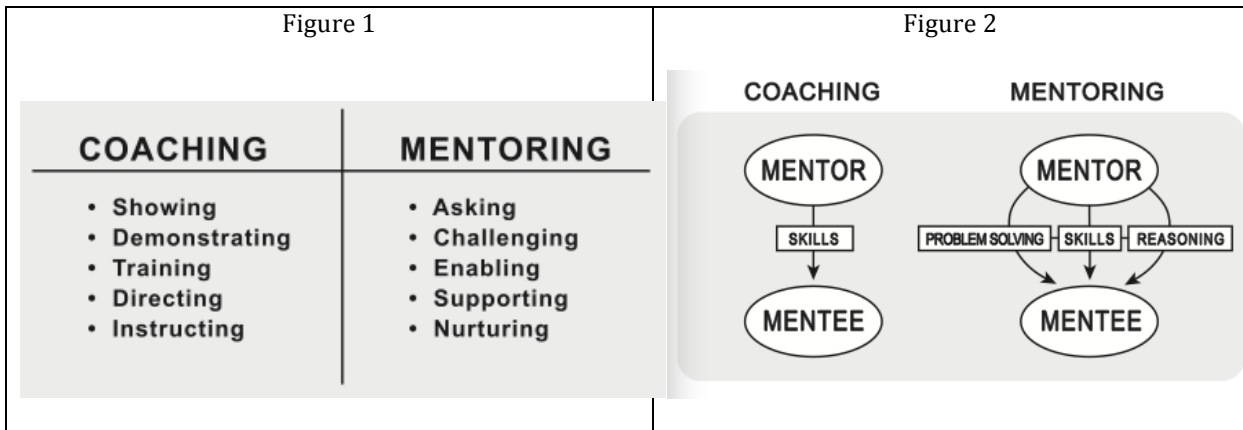
3. _____

4. _____

5. _____

Lesson Review

A simple description of coaching and mentoring is, coaching refers to skills development and mentoring refers to individual development. “Coaching implies showing, demonstrating, training, and directing. Mentoring implies asking, challenging, enabling, and supporting.” (see Fig. 1)². Coaching focuses on the foundational levels of learning where mentoring focuses on the higher integrated levels of learning (see Fig. 2)². Both Cognitive Levels and Mentoring will be discussed in greater detail in subsequent chapters.



Helpful Hint
 An experienced instructor will be able to move back and forth between coaching and mentoring according to the learners needs as they progress through the cognitive levels, to ensure learner success in mastering the content.

² National Ski Patrol, (2001) p. 2

Lesson Review

The *second adult education learning fundamental* is, adults are not passive learners. According to Malcolm Knowles⁴, adults tend to be self-directed, self-motivated, and learn more effectively in active learning environments where small group discussions, active problem solving or role-playing occurs. The *third adult education learning fundamental* is, adults learn best if learning is relevant/applicable/useful and by integrating the learning into previous learning and experiences, but are more willing to challenge the facilitator or seek acknowledgement of previous knowledge. This fundamental is one that that needs to be explored further.

Since the adult's past experience is the lens through which they view their world, they compare all new information with that experience; to either agree with, disagree with, or to better understand the new concepts. If they are able to integrate the learning into previous learning and experiences, it confirms, adds to, or even changes their perspectives/belief paradigms.⁵ If the new learning is at odds with their previous learning and experiences, they will have difficulty integrating the learning and challenge the instructor as the information cannot be reconciled in their mind.

This can occur at any time but it is also a facilitation technique that some use; to challenge learners' beliefs with a topic to evoke an emotional response, to cause reflection and analysis of one's core beliefs. This can result in charged discussions and takes a skilled facilitator to guide the discussion as affect and core beliefs are powerful things. The goal would be to change the learners' perspectives but if not experienced with this method, it could backfire and the result would be the direct opposite of what is desired. *"If learners are pushed too far, they will most likely react with defensiveness and resistance—or possibly complete withdrawal from the learning process"*⁶. The learner will shut down and no learning will take place. This concept closely aligns with Bloom's Taxonomy's Affective Domain (will be discussed in more detail later but needs to be noted here) where ***Participants cannot achieve the highest level of the cognitive or skills domain without achieving the highest level of the affective domain.***⁷; if learning is at odds with the learner's previous learning and experiences and the learning cannot be reconciled, participants will not be able to examine or analyze the content, both of which belong to the higher levels of learning.

⁴ Knowles, 1980

⁵ Mezirow (1997)

⁶ Gravett, Petersen (2009)

⁷ Parvensky, (1995) p. 6

Helpful Hint

By knowing the internal motivations of the learners, lesson planning can be adapted to meet their needs.

Lesson Activity

There are three main steps in the process of how adults learn. There is self-diagnosis (where the adult learner diagnoses/rates their ability to achieve the cognitive objective), integration of new information with previous experience (where the adult learner compares the skill/knowledge with past experience), and identifying how the information is immediately useful (the adult learner identifies how and where they can use the knowledge). Your lesson plans should reflect these steps.

An objective is stated below. Divide into groups. Each group will draft comments/questions to be used in a lesson plan that will cause the learner to evaluate the objective in relation to each of the three keys to adult learning.

Example:

Objective: *Learners will be able to demonstrate how to properly fold a triangular bandage for its different uses.*

Lesson Plan Questions:

Self Diagnosis:

Do you know what a triangular is used for?

Integrate new information with previous experience:

Have you ever needed to apply a bandage, splint or arm sling?

Information is immediately useful:

A triangular has many uses including bandaging, slings and splints, a makeshift head-cover (bandana), face-cover (balaclava) or belt.

Objective: *Learners will be able to demonstrate how to splint a fractured wrist using improvised materials.*

Lesson Plan Questions:

Self Diagnosis:

Integrate new information with previous experience:

Information is immediately useful:

Lesson Review

Lesson Plan Questions:

Self Diagnosis:

Would you know what to do if a companion fractured a wrist while hiking on a day-trip?

Integrate new information with previous experience:

What is the purpose of using a splint?

Information is immediately useful:

First aid kits are not always available. Being able to splint an injury with improvised materials is an asset.

Lesson Activity

In addition to learning fundamentals and adult learning characteristics, there are also learning styles. Learning styles are how we best receive information. Learning is connected to perceptions. What we think is the result of our current perceptions. Perceptions are mainly gathered by three senses, which reflect the three primary learning styles. They are visual (what we see), auditory (what we here) and kinesthetic (touch and emotion, or what we feel).⁸

What is interesting is that a perceptive facilitator will pick up on a learner's predominant or preferred learning style through their communication.

- A visual learner will use expressions such as "I See," "Do you see what I mean?" "I get the picture!" They also tend to make diagrams or use models.
- Auditory learners may say, "I hear what you are saying," "I want you to listen carefully," or "that sounds good to me."
- Kinesthetic learners may say, "This feels real good/bad," "I need to get a grip on this," or "That feels right to me."⁹

As with learners, you will too have a learning preference. Knowing your own preference is important as "instructors are best at teaching people 'who match their own styles of thinking and learning...and tend to overestimate the extent to which their students share their own styles'.¹⁰

Let's assess your learning style. The following pages are "The Language System Diagnostic Instrument as developed by Cresencio Torres, (1986)" and is designed to determine what your preferred learning style is.

⁸ National Ski Patrol, (2004) p. 9

⁹ National Ski Patrol, (2004) p. 12

¹⁰ Merriam, Cafarella, Baumgartner (2007) p. 411

Preferences Exercise

Part One

Instructions: This instrument contains three parts. Part one consists of five sets of three paragraphs each. For each set, select the one paragraph that is easiest for you to read. Do not be concerned with the actual content of the paragraph, merely with how you respond to it compared to the other paragraphs in the set. Read all three paragraphs and then make your selection, but do not deliberate too long; your first response generally is best. Indicate the letter of the paragraph that you have selected on your answer sheet by circling the appropriate letter (A, B, or C) for each set.

You have five minutes in which to complete the entire instrument.

1.
 - A. The tinkle of the wind chimes tells me that the breeze is still rustling outside. In the distance, I can hear the whistle of the train.
 - B. I can see the rows of flowers in the yard, their colors shining and fading in the sunlight and shadows., their petals waving in the breeze.
 - C. As I ran, I could feel the breeze on my back. My feet pounded along the path. The blood raced through my veins, and I felt very alert.

2.
 - A. I like to be warm. On a cold night, I like to relax by a warm fire in a comfortable room with a cup of smooth, warm cocoa, and a fuzzy blanket.
 - B. The child talked into the toy telephone as though he were calling a friend. Listening to the quiet conversation, I could almost hear the echo of another child, long ago.
 - C. The view was magnificent. It was one of the most beautiful things I have ever seen. The panorama of the green countryside stretched out clearly below us in the bright, sparkling sun.

3.
 - A. They appeared to be surprised when they noticed that there were other people on the beach. The amazement on their faces turned to eagerness as they looked to see if they knew any of the people on the sand.
 - B. I was helped up and supported until I felt my strength coming back. The tingling sensation that ran up and down my legs—especially in my calves—was stronger after I stood up, and my body was extremely warm.
 - C. People will express themselves more verbally if they can talk about their interests or assets. You can hear the increased enthusiasm in their conversations, and they usually become more fluent.

4. A. The feedback that the speaker received was an indication that she was communicating more effectively. The people in the audience seemed to be in tune with what she was talking about.
- B. I want to understand how people feel in their inner worlds, to accept them as they are, to create an atmosphere in which they feel free to think and feel and be anything they desire.
- C. Children watch adults. They notice more than we realize. You can see this if you observe them at play. They mimic the behavior of the grownups they see.
-
5. A. Creative, artistic people have an eye for beauty. They see patterns and forms that other people do not notice. They respond to the colors around them, and their visual surroundings can affect their moods.
- B. They heard the music as if for the first time. Each change of tone and tempo caught their ears. The sounds soared throughout the room, while the rhythms echoed in their heads.
- C. Everybody was stirred by the deep emotions generated by the interaction. Some felt subdued and experienced it quietly. Others were stimulated and excited. They all felt alert to each new sensation.
-

Part Two

Instructions: This part consists of ten sets of items. Each item includes three lists (sets) of words. For each item circle the letter A, B, or C of the set of words that is easiest for you to read. Do not focus on the meanings of the words. Try to work quickly.

6. A. Witness
 Look
 See

 B. Interview
 Listen
 Hear

 C. Sensation
 Touch
 Feel

7. A. Stir
 Sensitive
 Hustle

 B. Watch
 Scope
 Pinpoint

 C. Squeal
 Remark
 Discuss

8. A. Proclaim
 Mention
 Acoustic

 B. Texture
 Handle
 Tactile

 C. Exhibit
 Inspect
 Vista

9. A. Scrutinize
 Focused
 Scene

 B. Articulate
 Hearken
 Tone

 C. Exhilarate
 Support
 Grip

10. A. Ringing
 Hearsay
 Drumbeat

 B. Movement
 Heat
 Rushing

 C. Glitter
 Mirror
 Outlook

11. A. Dream
 Glow
 Illusion

 B. Listen
 Quiet
 Silence

 C. Motion
 Soft
 Tender

12. A. Upbeat
 Listen
 Record

 B. Firm
 Hold
 Concrete

 C. Bright
 Appear
 Picture

13. A. Feeling
 Lukewarm
 Muscle

 B. Hindsight
 Purple
 Book

 C. Hearsay
 Audible
 Horn

14. A. Show
Observant
Glimpse

B. Tempo
Articulate
Sonar

C. Move
Powerful
Reflex

15. A. Purring
Overhear
Melody

B. Smooth
Grasp
Relaxed

C. Glowing
Lookout
Vision

Part Three

Instructions: This part consists of ten sets of three short phrases each. In each set, circle the letter A, B, or C of the phrase that you find easiest to read. Try to complete this task in the time remaining.

16. A. An eyeful

B. An earful

C. A handful

17. A. Lend me an ear

B. Give me a hand

C. Keep an eye out

18. A. Hand in hand

B. Eye to eye

C. Word for word

19. A. Get the picture

B. Hear the word

C. Come to grips with

20. A. The thrill of the
chase

B. A flash of lightning

C. The roll of thunder

21. A. Outspoken

B. Underhanded

C. Short-sighted

22. A. I see

B. I hear you

C. I get it

23. A. Hang in there

B. Bird's-eye view

C. Rings true

24. A. Clear as a bell

B. Smooth as silk

C. Bright as day

25. A. Look here

B. Listen up

C. Catch this

**Learning Preference Inventory
Scoring and Interpretation Sheet**

Instructions: Transfer your responses from the instrument to this sheet by circling the letter that you choose for each of the numbered items.

Part One:	1.	A	B	C
<i>Paragraphs</i>	2.	B	C	A
	3.	C	A	B.
	4.	A	C	B
	5.	B	A	C
Part Two:	6.	B	A	C
<i>Words</i>	7.	C	B	A
	8.	A	C	B
	9.	B	A	C
	10.	A	C	B
	11.	B	A	C
	12.	A	C	B
	13.	C	B	A
	14.	B	A	C
	15.	A	C	B
Part Three:	16.	B	A	C
<i>Phrases</i>	17.	A	C	B
	18.	C	B	A
	19.	B	A	C
	20.	C	B	A
	21.	A	C	B
	22.	B	A	C
	23.	C	B	A
	24.	A	C	B
	25.	B	A	C
Totals		I ___	II ___	III ___

Instructions: Total the letters circles in each vertical column. Place these three scores from columns I, II, and III in the box below. Multiply each of the column scores by 4.

Column I _____ x 4 = _____ (Actual Score)

Column II _____ x 4 = _____ (Actual Score)

Column III _____ x 4 = _____ (Actual Score)

Instructions: Chart your actual scores on the graph below by coloring in the space that represents your actual score in each of the three columns.

	0	10	20	30	40	50	60	70	80	90	100
Column I <i>Auditory</i>											
Column II <i>Visual</i>											
Column III <i>Kinesthetic</i>											

Your highest score indicates the primary mode that you use to interpret and communicate with the world around you. You probably use this mode (auditory, visual, or kinesthetic) the most, particularly when you are problem solving or in stressful situations.

Your second-highest (middle) score indicates your secondary mode, which you likely use in everyday conversation, in combination with your primary mode.

Your lowest score indicates your tertiary mode, which you may not use as much as the other two or at all in your normal conversation. In fact, it often remains at the unconscious level.

Each individual seems to be more comfortable in using one or two of these systems. Some people believe, however, that if an individual could learn to communicate in all three modes, or systems he or she could establish more rapport and trust with people whose primary systems differ from his or her own. Increased ability to communicate in all three systems might lead to increased effectiveness in communication.

Lesson Review

It is important to note that although many practitioners believe that this perceptions approach is **the way** of determining learning styles. In reality, there are at least five other approaches including; experience; social interaction; personality; multiple intelligences and emotional intelligence; conditions or needs; and two cognitive styles, global and analytical processing styles.

The predominant learning style approaches are: Kolb's experience approach where he categorizes learners into one of four different categories; accommodators, divergers, convergers, and assimilators; Myers-Briggs Type Indicator personality approach where psychological preferences are measured; and the perceptions approach we have just completed. Interestingly, although "three instruments" used to measure learning styles "came close to demonstrating... consistency... reliability... and validity...", some of the most widely used instruments... did not meet the minimum criteria for a psychometric instrument"¹¹ making it difficult to even try to understand a learners preference.

In the cognitive styles, the global processing style is one where learners process information in a simultaneous manner, where ideas or experiences are seen at once and not in any observable order. The analytical processing style is one where learners want information in a step-by-step manner and tend to perceive information in an abstract and objective manner. Bjorklund (1989) looks at the cognitive styles through the lens of "hemisphericity". Theory suggests that although the brain works as a whole, learners will have a dominant side of the brain (right or left) where information is processed and organized. Learners who are "right brain" dominant tend to be more global/intuitive learners that are visual, creative and artistic. Learners who are "left-brain" dominant tend to be more analytical/logical learners that are verbal, rational and detail oriented. As implied, the use of one side or the other is not unilateral. Learners will be dominant on one side but weaker on the other. Facilitators need to challenge learners to use both side of their brains through the use of multiple activities and teaching strategies that meet the needs of both left and right brain dominant learners.

None of this takes into consideration culture or ethnicity. Different ethnic groups with different histories and social practices would differ concerning their learning styles. Much of what has been discussed is a North American or Euro-American style and would be greatly influenced by non-western ways of learning and knowing including indigenous ways of knowing and those practiced by the many immigrants to our country. ***In general, facilitators must address as many learning styles as possible to ensure that all learners receive the information in their preferred learning style.*** It is important to note that each learner has a *predominant style* or preference and it is *not their sole style*, meaning that everyone will learn using all of the elements but are stronger in one than in the others. With this in mind, using too many strategies would effectively lose the point of the lesson. *The totality of the lesson should reflect many learning styles but every single activity may not.* A simple method a facilitator can use is have the learners follow this process:

watch, listen, do.

¹¹ Merriam, Cafarella, Baumgartner (2007) p. 410

Helpful Hint

<p><i>People tend to retain:</i></p> <ul style="list-style-type: none">• <i>10% of what they read</i>• <i>20% of what they hear</i>• <i>30% of what they see</i>• <i>50% of what they hear and do</i>• <i>70% of what they say</i>• <i>90% of what they say and do¹²</i>	<p><i>A Chinese proverb says it best:</i></p> <p><i>Tell me and I'll forget</i> <i>Show me and I may remember</i> <i>Involve me and I'll understand</i></p>
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¹² Pyke (1989)

Instructor Development Lesson 3 – Human Relations and Communications

Objectives

The learner will be able to:

- Understand the benefits of coaching vs lecturing
- Explain the human relations qualities necessary for effective facilitation
- List and explain effective listening skills
- Explain categories of nonverbal behaviour and signals necessary for interpreting nonverbal communication
- Describe the principals of effective feedback
- Identify and explain feedback techniques
- Understand communication inside and outside the classroom

Lesson Activity

The Brainstorm Carrousel

Your facilitator will have posted four sheets of flip-chart paper around the room. A discussion topic will have been written on the top of each flip-chart.

1. Qualities of the best instructor you have ever had
2. Facilitator listening skills
3. Examples of learner non-verbal messages
4. Facilitator techniques of constructive feedback

Each learner (or pair of learners depending on the size of the class) will start at a flip-chart and list/contribute two thoughts/comments related to the topic by writing them on the flip-chart with the supplied markers. After two minutes, learners will rotate to the next flip-chart. The learners now read the comments of the other learners and add two more thoughts/comments to the list without duplicating what is there. The rotation continues every two minutes until learners have had the opportunity to contribute to all of the flip-charts. Once complete, the learners are to review all comments and add any final thoughts they may have. The facilitator will debrief the comments with the class.

After the activity has ended and the facilitator has finished debriefing the content, please list below, some of your thoughts and observations regarding the learning activity.

Lesson Review

This lesson achieves many objectives. First, let's look at the activity itself, the Brainstorm Carousel. There were many components of the activity, each with its own reason or desired outcome. The main purpose of the lesson was to facilitate the learning objectives. Each of the flip-charts represented one learning objective. The main purpose of the activity used was to identify what the adult learners already know and then fill in the gaps knowledge. Dewey (1938) said it best ; "The beginning of instruction shall be made with the experience learners already have ...this experience and the capacities that have been developed during its course provide the starting point for all further learning (p. 74). Before reading on, I would suggest that you pause here and reflect on the activity using this new information as a lens to view it through.

Secondly, the content written by the participants and summarized by the facilitator should have covered the following:

Qualities of the best instructor I ever had

When I think about some of my most influential instructors from my past, I remember those who were confident in their knowledge but also humble as it is impossible to always have all of the answers. If questions came up that they could not answer, they would say so, but would indicate that they will find the answer and follow up. They were also skilled, enthusiastic, had a sense of humour, and treated people fairly, equally, consistently and in a friendly manner while still maintaining the role of a coach or mentor. Because of these qualities, the instructor was respected and learners were more engaged.

Facilitator listening skills

One half of "communications" is listening. In some aspects, listening may be more important than the action of talking or sending information. Listening, or how you listen, can set the tone of the class through your unspoken feedback and how you engage in communications. While speaking, you should build natural pauses into your style. This allows for learners to pose questions and make comments; a way to turn what many use as one-way communications into a conversational style of communicating. Make eye contact with those in the room, specially with those that are speaking. Adults will want to share their experiences. Ensure you are hearing what they are saying, verify the message, repeating/paraphrasing what you heard back to the student, and bring the message back to the lesson by relating it to the topic being discussed. Pay attention to non-verbal messages.

Learner Nonverbal Communication

Communication consists of two parts, content which is mostly verbal (we will discuss this in subsequent chapters) and emotion which is expressed in other means, usually non-verbally. Have you ever received an email or text from someone only to find out later that what they meant was something totally different than what you read? This is because "Nonverbal communications can communicate up to 70% of the meaning".¹³ If you cannot see the

¹³ National Ski Patrol, (2004) p. 17

person who is sending the message, there is a high risk of misunderstanding the message. In the classroom, you need to pay attention to the participants as they can be consciously or subconsciously communicating their feelings or understanding and you need to pay attention to yourself to ensure your body language is sending the correct message.

Eye contact is important. If it is not occurring; if learners are not meeting your gaze as you look at them in the classroom or seem to be occupied with something other than the class, slumped back in the chair, fiddling with papers, they may be disengaged or require a break. Lack of eye contact could also mean embarrassment or even be due to cultural reasons.

Constructive Feedback

Feedback must be clear and specific. Being non-specific (for example “that’s wrong, try again”), will cause the learner to become defensive and unreceptive, and even more so if done in a machine gun-like fashion; where attempts are made to detect and point out every error made. You should focus on the knowledge or skill you wish to correct; be able to describe the what or how in a constructive manner, and you may even need to demonstrate (this is why it is important that you are knowledgeable and proficient in the discipline being facilitated). It is equally important that you are objective vs subjective. Avoid “good” or “bad” but focus on the behavior. Relate it back to the objectives; what is the learning that is desired? Give credit for what is known and help in the discovery of what is not. Coach them through practice, and mentor them through the analysis (review figures 1 & 2, Lesson 1).

Lesson Activity

You are student learning how to apply a dressing to a bad laceration on a forearm with lots of blood. You have already learned all about disease transmission. You take a bandage out of the first aid bag but you did not put on rubber gloves. As you begin to wrap the bandage, the instructor blurts out “you now just got hepatitis and AIDS”.

Where did this instructor go wrong? How would you have addressed the error?

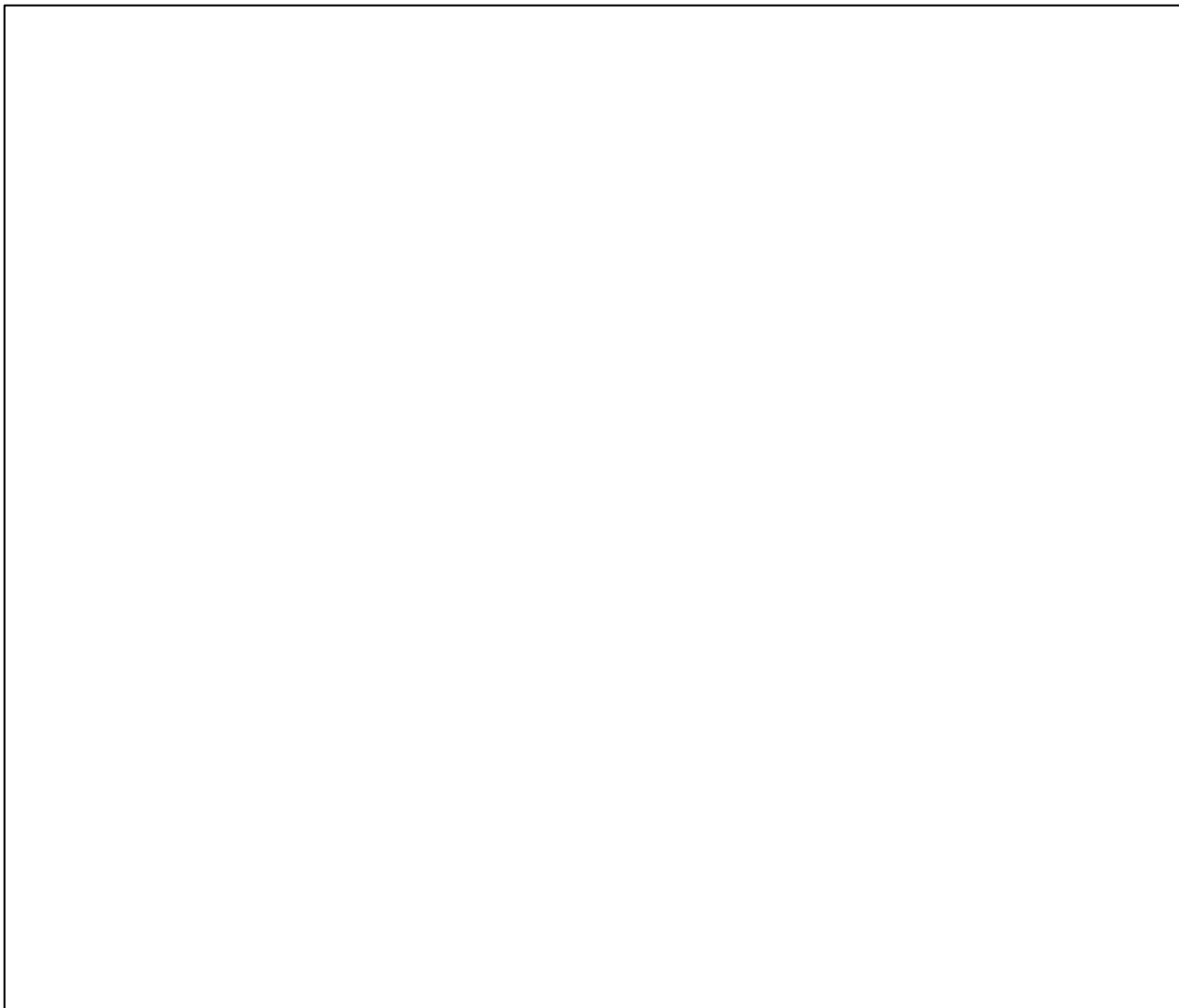
Lesson Review

A better method for this scenario could have been to let the activity end and turn the error into a problem solving activity. Ask the student “is it possible that the blood carries disease?” “How could you protect yourself?” Instead of the omniscient voice of the instructor saying “wrong, wrong, wrong”. By using a mentoring style of questioning in place of the negative feedback, the student will be able to integrate the information into their experience and immediately apply it.

Providing feedback can be a difficult task for some. Your goal is to have the students think; to make correct choices; to reason through the information. You want to show the information; to create a visual, not tell. The main point of the corrective action was to understand the importance of the protection of wearing gloves, not that you can potentially get a disease from the blood.

Lesson Activity

Communication: in the space below, draw a line representing a papa bull, a mama bull and a baby bull.

A large empty rectangular box with a thin black border, intended for a drawing activity. The box is currently blank.

Lesson Review

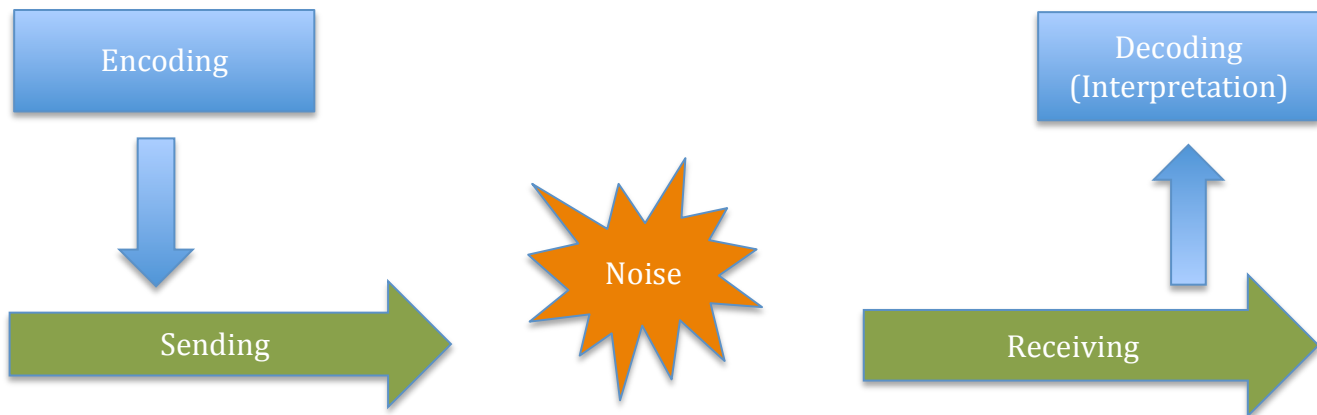
When given those simple instructions, the usual end result is:



Is this what you drew? What the instructions actually ask for is “draw *a line* representing...” and it should look like this:



(Not to mention that there is no such thing as a mama bull). The message being “sent” must be accurate and clear, otherwise, as in the example above, the result will be exactly what you asked for, although though not what you want. It is very important that the message you are sending is the same as the one being received. According to Zimmerman et al, the communication process consists of the following:



The idea is formulated, encoded and sent by the sender. It is filtered through noise (external or internal distractions), then received (or partially received) and interpreted by the listener. A formulated idea that is not clearly encoded, is interfered with by noise, or misunderstood in the decoding, will rarely be the intended message being sent. Each variable could cause a breakdown in communication. Your role as an educator is to mitigate as many of the variables as possible to ensure the messages being sent are the same ones being received. Two major variables are: 1. the classroom environment (noise, cell phones, comfort) and 2. The accuracy of your encoding. A good way to verify your messages is to

have the learners paraphrase in their own words, what you said, so encoding errors can be corrected immediately.

Helpful Hint

How can you teach someone something if you don't already know what they know (their current level of knowledge)?

Instructor Development Lesson 4 – Learning Domains and Levels

Objectives

The learner will be able to:

- List Bloom's Taxonomies
- Categorize learning objectives within the Taxonomies
- Rate learning objectives
- Identify sequential levels of learning
- Explain the use of key verbs in lesson planning
- Incorporate the use of Bloom's Taxonomies into lesson planning

Lesson Activity

Below you will find three tables, each one with a list of questions from a domain of learning. The domains are:

- **Cognitive** (knowledge-based) goals – intellectual levels, from basic recall to more complex and abstract forms of thinking (intellectual capability, i.e. Knowledge or think).
- **Psychomotor** (skills based) goals – based on movement, coordination and skills (manual and physical skills i.e. do).
- **Affective** goals – behaviours and feelings informing attitudes, values, and interests (feelings, emotions and behaviour, i.e. attitude).

Within each domain are a group of measurable outcomes called taxonomies. Within each taxonomy, levels of expertise are listed in order of increasing complexity.

In each table below, each question represents a different level of complexity of thinking required to remember and use the information.¹⁴ Your task is to first, put the questions into order, from lowest (those that you believe would require less complex thinking), to highest (those that you believe would require more complex thinking) and second, determine which domain the table of questions represent (cognitive, psychomotor or affective).

¹⁴ The Center for Teaching and Learning, 2016

Table 1 Domain: _____

___	What does the summer solstice represent?
___	When is the first day of Spring?
___	What would Earth's seasons be like if its orbit was perfectly circular?
___	Why are seasons reversed in the southern hemisphere?
___	What would be the important variables for predicting seasons on a newly discovered planet?
___	If the longest day of the year is in June, why is the northern hemisphere hottest in August?

Table 2 Domain: _____

___	Complete a secondary survey/assessment.
___	Combine the secondary survey with the primary survey and complete a full scenario.
___	Complete all five steps of the assessment in the manner demonstrated in the video.
___	Following the steps outlined in the checklist, complete the assessment.
___	After receiving the incident history, complete the scenario.

Table 3 Domain: _____

___	The concepts being discussed are important and worthwhile..
___	The information presented was challenging and will change my thinking and behaviour.
___	I participate in class discussions and complete group activities.
___	Some of the ideas I've learned in my class differ from my previous beliefs. How do I resolve this?
___	When I'm in class I am attentive to the instructor, take notes, etc.

Lesson Review

The taxonomies use a multi-tiered scale to express the level of expertise required to achieve each measurable student outcome.¹⁵ The levels can be thought of levels of difficulty. One level must be mastered before learning can take place at the next level.¹⁶ Which of the three domains to use for a given measurable student outcome depends upon the original goal to which the measurable student outcome is connected. Below you will find the answers to the activity and further explanation of each domain.

Table 1 – Cognitive Domain (original Bloom’s Taxonomy. We are looking at the original Bloom’s Taxonomy, not the revised version. There are subtle differences that you can research but for our use, the differences do not influence our use of the taxonomies.)

2	What does the summer solstice represent?
1	When is the first day of Spring?
3	What would Earth's seasons be like if its orbit was perfectly circular?
4	Why are seasons reversed in the southern hemisphere?
6	What would be the important variables for predicting seasons on a newly discovered planet?
5	If the longest day of the year is in June, why is the northern hemisphere hottest in August?

The cognitive domain involves knowledge and the development of intellectual skills, which include the recognition of facts, patterns, and concepts that serve in the development of intellectual abilities^{17 18 19}. There are six levels in the cognitive domain. Most will categorize them into three levels.²⁰

¹⁵ The Center for Teaching and Learning, 2016

¹⁶ National Ski Patrol, (2004) p. 33

¹⁷ Parvensky, (1995) p. 6

¹⁸ The Center for Teaching and Learning, 2016

¹⁹ National Ski Patrol, (2004) p. 33

²⁰ The Center for Teaching and Learning, 2016

Category	Level	Description	Verbs
Knowledge	Information (memorization)	Recall, or recognition of terms, ideas, procedure, theories, etc.	arrange, define, describe, label, list, memorize, recognize, relate, reproduce, select, state
	Comprehension (understanding)	Translate, interpret, extrapolate, but not see full implications or transfer to other situations, closer to literal translation.	explain, reiterate, reword, critique, classify, summarize, illustrate, translate, review, report, discuss, re-write, estimate, interpret, theorize, paraphrase, reference, example
Application	Application	Apply abstractions, general principles, or methods to specific concrete situations.	use, apply, discover, manage, execute, solve, produce, implement, construct, change, prepare, conduct, perform, react, respond, role-play
Problem solving	Analysis	Separation of a complex idea into its constituent parts and an understanding of organization and relationship between the parts. Includes realizing the distinction between hypothesis and fact as well as between relevant and extraneous variables.	analyze, break down, catalogue, compare, quantify, measure, test, examine, experiment, relate, graph, diagram, plot, extrapolate, value, divide
	Synthesis	Creative, mental construction of ideas and concepts from multiple sources to form complex ideas into a new, integrated, and meaningful pattern subject to given constraints.	develop, plan, build, create, design, organize, revise, formulate, propose, establish, assemble, integrate, re-arrange, modify
	Evaluation	To make a judgment of ideas or methods using external evidence or self-selected criteria substantiated by observations or informed rationalizations.	review, justify, assess, present a case for, defend, report on, investigate, direct, appraise, argue, project-manage

Table 2 – Skills domain (psychomotor)

3	Complete a secondary survey/assessment.
4	Combine the secondary survey with the primary survey and complete a full scenario.
1	Complete all five steps of the assessment in the manner demonstrated in the video.
2	Following the steps outlined in the checklist, complete the assessment.
5	After receiving the incident history, complete the scenario.

The skills (psychomotor) domain involves activity and the development of physical skills. It is measured in terms of ability, precision and ease in the execution of techniques. There are several iterations of the psychomotor domain that were presented in the years following Bloom’s cognitive taxonomy. They consist of five to seven levels in the skills (psychomotor) domain ^{21 22 23} which can be categorized into three levels, imitation, practice and habit (development of proficiency). The different iterations can be applied to different scenarios, but we will focus on Dave’s (1967/1970) five-level version.

²¹ National Ski Patrol, (2004) p. 33

²² Parvensky, (1995) p. 6

²³ The Center for Teaching and Learning, 2016

Category	Level (Simpson, E, 1966)	Description	Verbs	Level (Dave, R., 1967)	Description	Verbs
Imitation	Perception	Uses sensory cues to guide actions	recognize, distinguish, notice, touch, hear, feel, etc	n/a		
	Set	Demonstrates a readiness to take action to perform the task or objective	arrange, prepare, get set	Imitation	Copy action of another	copy, follow, replicate, repeat, adhere
Practice	Guided Response	Knows steps required to complete the task or objective	imitate, copy, follow, try	Manipulation	Reproduce activity from instructions	Re-create, build, perform, execute, and implement
	Mechanism	Performs task or objective in a somewhat confident, proficient, and habitual manner	make, perform, shape, complete	Develop Precision	Execute skill reliably, independent of help	Demonstrate, complete, show, perfect, calibrate, control, and practice
Habit	Complex Overt Response	Performs task or objective in a confident, proficient, and habitual manner	coordinate, fix, demonstrate	Articulation	Adapt and integrate expertise to satisfy a non-standard objective	Construct, solve, combine, coordinate, integrate, adapt, develop, formulate, modify, master, improve, and teach
	Adaptation	Performs task or objective as above, but can also modify actions to account for new or problematic situations	adjust, integrate, solve	Naturalization	Automated, unconscious mastery of activity and related skills at strategic level	Design, specify, manage, invent, and project-manage
	Organization	Creates new tasks or objectives incorporating learned ones	design, formulate, modify, re-design, trouble-shoot	n/a		

Table 3 Affective Domain (attitude)

3	The concepts being discussed are important and worthwhile.
5	The information presented was challenging and will change my thinking and behaviour.
2	I participate in class discussions mind complete group activities.
4	Some of the ideas I've learned in my class differ from my previous beliefs. How do I resolve this?
1	When I'm in class I am attentive to the instructor, take notes, etc.

The affective domain involves emotional responses and attitudes. It is demonstrated in willingness, engagement, assignment of values and actions according to those values.²⁴ The affective domain is the most difficult to understand and teach²⁵ but what is important to note is ***participants cannot achieve the highest level of the cognitive or skills domain without achieving the highest level of the affective domain.***²⁶ There are five levels in the affective domain.^{27 28 29}

Level	Description	Verbs
Receiving	Pays attention, willing to hear	ask, listen, focus, attend, take part, discuss, acknowledge, hear, be open to, retain, follow, concentrate, read, do, feel
Responding	React and participate actively. Engage the learner.	react, respond, seek clarification, interpret, clarify, provide other references and examples, contribute, question, present, cite,
Valuing	Examine beliefs, ascribe worth, attach values, express personal opinions.	argue, challenge, debate, refute, confront, justify, persuade, criticize
Organization	Analyze the internal consistency of ones value structure, develop a value system.	build, develop, formulate, defend, modify, relate, prioritize, reconcile, contrast, arrange, compare
Characterization	Act consistently in accordance with internalized principles, adopt a belief system and philosophy	act, display, influence, solve, practice,

²⁴ National Ski Patrol, (2004) p. 36

²⁵ Parvensky, (1995) p. 3

²⁶ Parvensky, (1995) p. 6

²⁷ National Ski Patrol, (2004) p. 37

²⁸ Parvensky, (1995) p. 6

²⁹ The Center for Teaching and Learning (2016)

Lesson Activity

Match the activity to the Cognitive Level

Level		Activity
Information (memorization)		explain or interpret meaning from a given scenario or statement, suggest treatment, reaction or solution to given problem, create examples or metaphors
Comprehension(understanding)		identify constituent parts and functions of a process or concept, or de-construct a methodology or process, making qualitative assessment of elements, relationships, values and effects
Application		develop plans or procedures, design solutions, integrate methods, resources, ideas, parts; create teams or new approaches, write protocols or contingencies
Analysis		review strategic options or plans in terms of efficacy, return on investment or cost-effectiveness, practicability; assess sustainability; perform a SWOT analysis
Synthesis		multiple-choice test, recount facts or statistics, recall a process, rules, definitions; quote law or procedure
Evaluation		put a theory into practical effect, demonstrate, solve a problem, manage an activity

Lesson Review

Level	Activity
Information (memorization)	explain or interpret meaning from a given scenario or statement, suggest treatment, reaction or solution to given problem, create examples or metaphors
Comprehension(understanding)	identify constituent part and functions of a process or concept, or de-construct a methodology or process, making qualitative assessment of elements, relationships, values and effects
Application	develop plans or procedures, design solutions, integrate methods, resources, ideas, parts; create teams or new approaches, write protocols or contingencies
Analysis	review strategic options or plans in terms of efficacy, return on investment or cost-effectiveness, practicability; assess sustainability; perform a SWOT analysis
Synthesis	multiple-choice test, recount facts or statistics, recall a process, rules, definitions; quote law or procedure
Evaluation	put a theory into practical effect, demonstrate, solve a problem, manage an activity

Lesson Activity

Match the activity to the Skills (psychomotor) Level

Level		Activity
Imitation		perform a task or activity with expertise and to high quality without assistance or instruction; able to demonstrate an activity to other learners
Manipulation		watch teacher or trainer and repeat action, process or activity
Develop Precision		relate and combine associated activities to develop methods to meet varying, novel requirements
Articulation		define aim, approach and strategy for use of activities to meet strategic need
Naturalization		carry out task from written or verbal instruction

Lesson Review


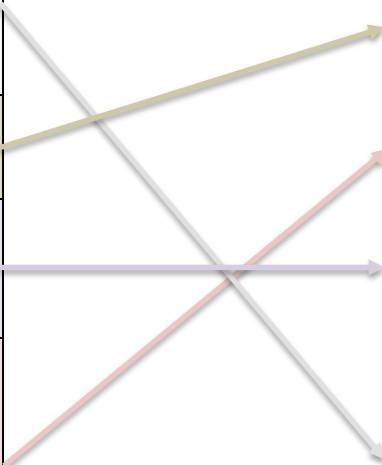



Level		Activity
Imitation		perform a task or activity with expertise and to high quality without assistance or instruction; able to demonstrate an activity to other learners
Manipulation		watch teacher or trainer and repeat action, process or activity
Develop Precision		relate and combine associated activities to develop methods to meet varying, novel requirements
Articulation		define aim, approach and strategy for use of activities to meet strategic need
Naturalization		carry out task from written or verbal instruction

Lesson Activity

Match the activity to the Affective Level

Level		Activity
Receiving		listen to teacher or trainer, take interest in session or learning experience, take notes, turn up, make time for learning experience, participate passively
Responding		decide worth and relevance of ideas, experiences; accept or commit to particular stance or action
Valuing		self-reliant; behave consistently with personal value set
Organization		qualify and quantify personal views, state personal position and reasons, state beliefs
Characterization		participate actively in group discussion, active participation in activity, interest in outcomes, enthusiasm for action, question and probe ideas, suggest interpretation

Lesson Review

Level		Activity
Receiving		listen to teacher or trainer, take interest in session or learning experience, take notes, turn up, make time for learning experience, participate passively
Responding		decide worth and relevance of ideas, experiences; accept or commit to particular stance or action
Valuing		self-reliant; behave consistently with personal value set
Organization		qualify and quantify personal views, state personal position and reasons, state beliefs
Characterization		participate actively in group discussion, active participation in activity, interest in outcomes, enthusiasm for action, question and probe ideas, suggest interpretation

Lesson Review

An important takeaway from an understanding to Bloom's Taxonomies is that they are a convenient way to describe the degree to which we want our students to understand and use concepts, to demonstrate particular skills, and to have their values, attitudes, and interests affected. The levels help us objectively identify the current level of understanding of our students and it is critical that we determine the levels of student expertise that we are expecting our students to achieve because this will determine which classroom activities and assessment techniques are most appropriate for the course and act as a guide with adjusting strategies to ensure objectives are being met.

Many may now be asking "how do I use the Taxonomies?" When reviewing most textbooks, at the beginning of each chapter you will find goals and objectives. The objectives determine the level of difficulty, and are measurable and observable. Some textbooks may even go as far as breaking down the objectives into the three domain types. These objectives consist of learning statements including the Taxonomy verbs and can be used to help create lesson plans (discussed in subsequent chapters). They are a *guide*, or may even be part of a greater lesson guide created as a companion document supplied with a textbook for instructors. The descriptive verbs are the desired actions of the learners and the required level of understanding. The facilitator's role is to create activities where learners have the opportunity to put the actions into play.

Helpful Hint

For a learner to reach the higher cognitive and skill levels, they must first be able to internally reconcile the information and employ those beliefs..

Lesson Review

Your instructional areas must meet your lesson requirements:

- Sufficient space for students, personal gear, movement, practice space
- Comfortable room temperature
- Structured so they and you can see and hear you/each other/see presentation media
- If outside,
 - Protected areas from weather (ensure students are aware of being prepared for the outdoor environment) and have a backup plan
 - Located to minimize potential public interruption/avoid distractions (signage indicating “training” can be utilized
 - Restroom facilities
 - Consider participant skill level when selecting sites

Lesson Activity

The last items in quality course management are quality instruction and accountability. In the table below, indicate which statements relate to quality instruction and which statements relate to accountability.

Maintaining records	
Ensuring objectives are being met	
Essential content is being delivered	
Submission of required documentation to governing bodies	
Standards are being met.	
Documenting completion of skills and objectives	

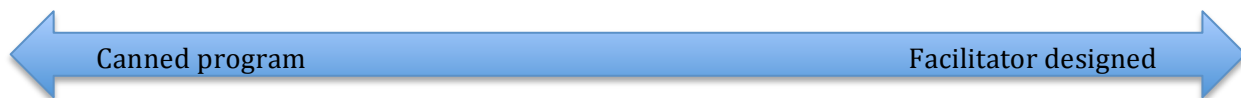
Instructor Development Lesson 6 – Lesson Content

Objectives

The learner will be able to:

- Describe the differences between the how and what of teaching
- Identify the preferred course delivery method (scripted/canned program vs non scripted facilitator designed)
- Explain how an objective guides lesson planning
- Describe the importance of understanding the participants current level of knowledge in relation to the objectives
- Compare and contrast various instructional delivery methods
- Explain how the student plays a role in learning through instructional activities
- Discuss the benefits of active learning (learner focused facilitation) as compared to instructor focused facilitation.

Lesson planning is an action where you as an instructor use the course material (the “what”) to create lesson plans for the delivery of that content (the “how”). The “what” can be as simple as a periodical article (where you will need to design your own objectives, content and measures) to a highly scripted program where every instructional step is outlined including objectives, presentation materials, instructional strategies and measures (these are called canned programs designed for uniform delivery regardless of who delivers the course or where it is delivered) and everything in between. The former requires much skill and experience as an educator where the latter only requires desire and communication skills. Most programs lie in-between these two extremes. It can be thought of as a continuum of course delivery styles.



Course delivery style continuum

We are going to discuss and practice the full range of the continuum, but for the most part, your responsibilities will be somewhere in the middle, where course materials are provided with objectives, instructor lesson guides outlining “must knows” or “essential content” (some lesson guides may also include suggested instructional activities and suggested materials and equipment), and evaluations (in the form of tests and/or skills checklists). The focus will be the negotiable part; “how” the content is delivered, “... the interaction and communication that takes place between the instructor and participants”.³¹

³¹ National Ski Patrol, (2004) p. 40

Lesson Review

Hopefully you recall from chapter 4, the verb “demonstrate” as a higher level of the skills/physical domain. You would need to first ensure mastery of the lower levels of the domain as well as the required levels of the cognitive domain prior to proceeding to the higher levels. There should be other learning activities leading up to this activity that meet the lower level learning objectives. As a facilitator, your lesson plan(s) should include these and/or include a method to determine what level your participants have already achieved and then teach to that bottom denominator. For example, if a participant doesn’t know what a deadly bleed is (although some may already have that knowledge), you would start your lesson/activity with understanding deadly bleeding. If everyone knew what deadly bleeding was but some participants did not know how to treat deadly bleeding, you would start with having the participants follow and then replicate the actions of treating the deadly bleed prior to demonstrating the skill.

In highly pre-scripted course, this most likely would not be an issue as the facilitator is required to follow *all* steps as prescribed regardless of each of the participant’s level of knowledge. In less pre-scripted courses, you need to ensure that you are meeting the needs of all participants, identifying their level of knowledge, and filling the gaps. Careful attention must be paid to the objectives and verbs used, ensuring full understanding prior to moving to the application levels.

Lesson Activity

To summarize, while reviewing learning objectives, you should consider what level of behaviours are desired. How do you ensure the lower learning levels have been mastered? What is the actual content or skill to be learned? In a group, spend several minutes discussing how you would identify the current level of knowledge of your participants.

Lesson Review

Your discussions should have revolved around activities designed to discover what the learners know such as large group discussion where questions are asked or activities such as the brainstorm carousel discussed earlier.

Lesson Activity

Now that the required content (the what), and the level of desired behaviours (objective) have been identified, and the required foundational knowledge exists, the delivery method can be focused on. There are numerous methods and strategies used to deliver material. Below you will find a list of different strategies. In a group setting, please identify, compare and contrast the positive and negative of each strategy. Identify the types of topics most suited for each strategy.

Strategy	Positive	Negative
Lecture		
Demonstration		
Model (prototypes/ systems)		
Video		
PowerPoint		
Flip charts		
Scenarios		
Questioning/ group discussion		
Skills stations		
Skits/role playing		
Games		
Case study/problem solving		
Student presentations		

Lesson Review

Regardless of which strategies are used, the method should generate learner interaction with the content. As discussed in Lesson 2, strategies used should address as many learning styles as possible, keeping in mind that using too many strategies would effectively lose the point of the lesson. Below you will find a summary comparison of the positive and negative of each strategy. Were yours the same? Different?

Strategy	Positive	Negative
Lecture	Suitable for large groups. Use of analogies and/or personal narratives greatly increases benefit as content becomes applicable for the participants (narratives provide vicarious experience so that the adult learner can apply learning to personal experiences ³²).	Mostly beneficial for auditory learners. Instructor centered. Presenter must have excellent communication skills. Takes time to prepare.
Demonstration	Can be combined with lecture to address auditory learners in addition to visual learners. Correct process can be demonstrated.	Mostly beneficial for visual learners.
Model (prototypes/ systems)	Able to see how the learning is applied in/related to real life.	Limited to course material that can be modeled.
Video	Both videos and PowerPoints can augment lectures to include benefit for visual learners.	Poorly made videos or overly lengthy videos can take away from the lesson. Can be costly to show or time consuming to create
PowerPoint	Can show images or diagrams to reinforce or further explain lecture	Improper use of PowerPoint (i.e. too many words) reduces effectiveness and defeats the purpose (reading is not visual).
Flip charts /white boards	Can be used in activities, to record important points of lecture, to draw diagrams to support lecture. Can be prepared in advance	Not suitable for larger groups
Scenarios	Active practice to explore problems, refine processes. Can address most learning styles across participants in the small group (owe doing, watching, listening)	Small groups only. Some individuals may not be comfortable performing in front of others.
Questioning/ group discussion	Can turn a lecture into a more participatory process. Can be used with larger groups, but the smaller the group, the greater the benefit.. Enables brainstorming.	Not all students will engage. The larger the group, the less number whom can engage (auditory learners will not engage).
Skills stations	Ability to apply skills (practice) and easily observable. Smaller groups (usually multiple stations)	Takes planning and is more instructor labour intensive to supervise. Should be preceded with demonstration.
Skits/role playing	Similar to scenarios but includes demonstration which can benefit larger group watching. Usually more involvement by	Difficult to involve everyone in the active portion. Not everyone will feel comfortable performing. Must ensure skit stays on topic

³²Jonassen and Hernandez-Serranno (2002) p. 69

	participants in research and design of skit.	
Games	Interactive, , engaging, reinforces learning.	Must be carefully designed to reinforce learning. Over-use can detract from learning.
Case study/problem solving	Engages participants in higher order thinking activities. Provides in-depth knowledge.	Must ensure foundational knowledge exists prior to implementing. Difficult to involve all participants
Student presentations	Creation of presentation provides a more in depth knowledge of content. Instructor can easily evaluate knowledge level. Observers receive some benefit watching presentation.	Best benefit is for those creating presentation. Instructor must ensure all objectives are met. Takes a lot of time to create and a lot of class time to have multiple presentations. Presenters may not have understanding on how to address multiple learning styles, requires specific instruction on best presentation method. Inherent difficulties if a group presentation (equal involvement of participants in design).

By this point, you should be able to identify the keys to choosing strategies. First, strategies must match the content and meet the objectives, and second, overall combination of strategies must benefit all participants. For example, which strategies could you use to augment a lecture? Most will be familiar with PowerPoint full of text on the slides. Is this method beneficial or could the way the PowerPoint was used be improved upon? Or should a different method be utilized? How does the size of group or content of lesson affect your choice?

It is natural instructors to use a method and a learning style they learn best with. It is important use a variety of strategies focusing on the ones that best suit the objectives of the lesson.

Lesson Activity

Divide into groups. Each group must complete one of the tasks below.

Group 1

Task:

The group will devise a presentation (5 minutes) to instruct the other groups in the key points of using laptops and projectors effectively.

Suggestions:

Use laptop and projector to convey your information and model examples

Equipment testing / familiarity prior to use.

Outline potential problems and fixes (extension cords, bulbs)

Demonstrate tips on effective use

Outline advantages and limitations

Objectives

The learner will be able to:

- Demonstrate how to
 - Turn on the projector and laptop
 - Hook up the two devices
 - Create a basic PowerPoint slide
- Understand that too many words on a slide detract from the lesson and address only one type of learner
- Discuss why the facilitator should never read from the slides
- Explain that slides are best used for visual support (pictures, diagrams etc)
- Recognize copyrights and how they apply to the use of images
- Explain why, if words are used on slides,
 - it should be in a point form format and a large enough font to be readable from the back of the room and
 - contrasting backgrounds should be used

Group 2

Task:

The group will devise a presentation (5 minutes) to instruct the other groups in the key points of using flip charts and White Boards effectively.

Suggestions:

Use flip charts to convey your information and model examples
Demonstrate tips on effective use
Outline advantages and limitations

Objectives:

The learner will be able to understand that:

- Words should be printed and point form should be used whenever possible
- Flip charts should be readable from the back of the room
- Flip charts can be prepared in advance
- Tape can be pre-torn for students hanging multiple charts

The Learner will consider the number of chart stands available/required and what can appear simultaneously

The learner will be able to select:

- Sensitive environmental markers
- Complementary and readable markers (non-bleeding)

The learner will be able to demonstrate how to :

- Add penciled in cheat notes on the flip charts
- Cut windows in flip charts for effect
- Use blank pages to cover flip charts prepared in advance
- Fold/tape flip charts for later unveiling
- Tab /label pages

Lesson Review

What we have been practicing is Active Learning through collaboration. Engaging students in doing something besides listening to a lecture and taking notes³³; activities that engage students in interacting with one another while learning and applying the course material. By using highly participatory methods during a program, learner involvement will increase, as will the programs effectiveness.³⁴

As suggested earlier, active learning projects in which one or two students do all the work, does not constitute active nor collaborative learning (the difficult part is to engage all group members). A technique you may have noticed in this activity is mentoring/coaching by the facilitator with all groups while working on the assigned tasks.

The goal of these assigned tasks was not only to reinforce the correct use of the various teaching strategies but to also help participants realize the benefits of active collaborative learning:

- Individual students may get stuck on a problem and give up, whereas groups of students tend to keep going,
- Students become exposed to alternative problem-solving strategies,
- Students are much less fearful of generating and answering questions among themselves than individually and directly to the instructor in class³⁵
- Collaborative learning enhances critical thinking.³⁶

Helpful Hint

The totality of the lesson should reflect many learning styles but every single activity may not.

Lesson Activity

Many lessons you teach will incorporate new practical skills. Skills not only require demonstration, they also require practice by the learner. There are two types of practice, guided and independent. Guided practice is where an instructor observes the skills based activities and provides immediate feedback, as in skills stations and scenario (feedback was briefly discussed in Lesson 3). There are many theories on how to provide feedback but the best method is to allow the activity to be completed (activities should not be interrupted unless the learner pauses/requests assistance allowing for coaching to occur), acknowledge what was done correctly, and provide constructive criticism in a positive manner for where skills could be improved. Independent practice is where learners who have demonstrated the ability to complete a skill, can gain fluency, speed, or accuracy. This can be done independently or together with peers.

³³ Feldmam, Brent (1997)

³⁴ National Ski Patrol, (2004) p. 50

³⁵ Feldmam, Brent (1997)

³⁶ Gokhale (1995)

In the next pages you will find Wikipedia information on Nordic Walking and an article by Nordic WalkFit on Urban Poling. Divide into groups. Each group is required to demonstrate and guide a practice session for Nordic Walking. The participants of each lesson will provide feedback to the presenting group.

Nordic walking³⁷

Nordic walking is a total body version of walking that can be enjoyed both by non-athletes as a health-promoting physical activity, and by athletes as a sport. The activity is performed with specially designed walking poles similar to ski poles.

History

Nordic walking (originally Finnish sauvakävely) is fitness walking with specially designed poles. While trekkers, backpackers and skiers had been using the basic concept for decades, Nordic Walking was first formally defined with the publication of "*Hiihdon lajiosa*" (translation: "A part of cross-country skiing training methodic") by Mauri Repo in 1979. Nordic Walking's concept was developed on the basis of off-season ski-training activity while using one-piece ski poles.

For decades hikers and backpackers used their one-piece ski poles long before trekking and Nordic walking poles came onto the scene. Ski racers deprived of snow have always used and still do use their one-piece ski poles for ski walking and hill bounding. The first poles specially designed and marketed to fitness walkers were produced by Exerstrider of the USA in 1988. *Nordic Walker* poles were produced and marketed by Exel in 1997. Exel coined and popularized the term 'Nordic Walking' in 1999.

Benefits

Compared to regular walking, Nordic walking (also called pole walking) involves applying force to the poles with each stride. Nordic walkers use more of their entire body (with greater intensity) and receive fitness building stimulation not present in normal walking for the chest, latissimus dorsi muscle, triceps, biceps, shoulder, abdominals, spinal and other core muscles that may result in significant increases in heart rate at a given pace. Nordic walking has been estimated as producing up to a 46% increase in energy consumption, compared to walking without poles.

According to the findings of the research, conducted by the group scientists from various universities*, both Nordic walking and conventional walking are beneficial for older adults. However, Nordic walking provides additional benefits in muscular strength compared to conventional walking, making it suitable for improving aerobic capacity and muscular strength as well as other components of functional fitness in a short period of time. The key points stated by the study authors are: Nordic walking, conventional walking, and resistance training are beneficial for older adults. •Nordic walking and conventional walking both improve cardio- respiratory fitness while resistance training does not. •Nordic walking provides additional benefits in upper- body muscular strength compared to conventional walking. •Nordic walking is an effective and efficient mode of exercise to improve overall fitness in older adults.

³⁷ Wikipedia, (2016)

Equipment

Nordic walking poles are significantly shorter than those recommended for cross-country skiing. Nordic walking poles come in one-piece, non-adjustable shaft versions, available in varying lengths, and telescoping two or three piece twist-locking versions of adjustable length. One piece poles are generally stronger and lighter, but must be matched to the user. Telescoping poles are 'one-size fits all', and are more transportable.

Nordic walking poles feature a range of grips and wrist-straps, or rarely, no wrist-strap at all. The straps eliminate the need to tightly grasp the grips. As with many trekking poles, Nordic walking poles come with removable rubber tips for use on hard surfaces and hardened metal tips for trails, the beach, snow and ice. Most poles are made from lightweight aluminium, carbon fiber, or composite materials. Special walking shoes are not required, although there are shoes being marketed as specifically designed for the sport.

Technique

The cadences of the arms, legs and body are, rhythmically speaking, similar to those used in normal, vigorous, walking. The range of arm movement regulates the length of the stride. Restricted arm movements will mean a natural restricted pelvic motion and stride length. The longer the pole thrust, the longer the stride and more powerful the swing of the pelvis and upper torso.

URBAN POLING TECHNIQUE³⁸

Below is the proper form and technique for nordic walking/urban poling. This special technique was carefully designed to most effectively exercise 90 % of the body's major muscles, developing and improving postural muscles and targeting core muscles simply by gently pressing down on the base of the pole handle!

Step 1: Grasp the poles lightly Begin by holding the pole grips loosely in your hands with your arms hanging completely relaxed at your sides. The tips of the poles should rest on the ground behind you. You do not ever need to maintain a tight grip on the poles.

Step 2: Let the poles drag With your arms at your side and dragging the poles behind you. Simply begin to walk, feel your arms naturally swing slightly in front and then behind your body with each stride. You won't need anyone to tell you when you've gotten to a normal walking stride. You'll recognize it—you've been doing it for years. Then simply begin to extend your arms a little further forward with each stride until you have begun to extend them into the handshake position with each stride.

Step 3: Shake hands When one walks, the arms move in front of the body as

³⁸ Nordic WalkFit (2015)

they swing forward, and behind the body as they swing backward. When you learn this technique, the arms will move farther in front of the body. The arm is raised into what I call the "handshake position". The arm is extended as though you are offering it for a friendly, confident handshake. Do not lock the elbow so that the arm is completely straight. There should be a slight, comfortable bend in the arm at the elbow. (This "handshake position" is the first key to maximizing the benefits of our technique) Once you are able to simply walk and extend your arm into the handshake position with each stride, you will feel the tip of the pole land and create a resistance to the rearward swing of the arm.

As the arms swing forward like a pendulum into the handshake position, the tips will automatically land in the "right" place and the pole will contact the ground at the "correct" (not 90 degree!) angle. Remember that the arm is actually a lever that transfers the major work of the pole to the large muscles of the trunk. The arm should keep a fixed shape with just a slight bend in the elbow and should move while pivoting from the shoulder. - like an old fashioned water pump.

Step 4: Push off As in cross-country skiing, the arms and legs should move with a smooth, rhythmic cadence. Your stride should be just like your normal, relaxed walking stride. As you push with your upper body to help you move forward, there is often a tendency to lengthen the stride, so pay special attention to maintaining a normal stride length. Attempt to make your entire motion as fluid as possible. With proper arm action, the large muscles in the trunk will do most of the work.

Work on planting the poles very lightly. No force should be applied to the poles until after the instant the tip has contacted the ground. Work on developing your timing! A firm push initiated at the instant the tip contacts the ground will maximize safety and results, and actually increase the life of the rubber tips. Applying force to the poles before the tips land will only invite injury and result in excessive wearing of the tips.

Grip the poles very lightly. Exercise intensity has nothing to do with how tightly you grip the poles. Always strive to maintain a light, relaxed grip on the poles. You do not have to control the movement of the poles, the angle of their landing or the location of the tip at landing. If you simply move your arms properly these things will happen automatically. Gripping the poles tightly will only result in creating tension and fatigue in the hands and forearms. The muscles in the hands and arms will naturally contract somewhat as you work to apply force on the back swinging motion of the arms, but keep the grip as relaxed as possible at all times.

Instructor Development Lesson 7 – Lesson Planning & Evaluation

Objectives

The learner will be able to:

- Explain the importance of planning
- Identify the components of a well written lesson plan
- Understand the requirement of flexibility to be built in to lesson plans
- Develop a lesson plan
- Define the purpose of monitoring
- Explain how to monitor student progress
- Define the purpose of evaluation
- Distinguish between knowledge and performance evaluations
- Explain how to evaluate student knowledge and performance
- Contrast monitoring and evaluation

In the previous lesson activity, you had the opportunity to practice several methods of content delivery. To bring your experiences together, the last topics to review are lesson planning, monitoring and evaluation. As suggested earlier, there are three general categories of course types, those that are unstructured (created by the facilitator), those that are partly structured with course content and lesson guides (lesson guides are not lesson plans, they are guides to assist you in developing your lesson plans), and those that are 100% scripted or canned programs that provide all required content and resources including lesson plans.

Lesson planning is a time consuming process but having a polished written plan increases the probability of a well-taught lesson, but this is no guarantee.³⁹ As every class will have the variable of a different cross section of participants, your lesson plans too must be flexible. You must always be ready to adapt the lesson to match the needs of your learners. This capacity only comes from experience.

Lesson Activity

Your lesson plan can be divided into three sections. The Introduction, the Body and the Summary. Each section has subsections, Purpose, Goals and Suggested Actions (activities or methods of content delivery). In groups, complete the chart below by providing what you believe would be suitable for the Goals and Suggested Actions for each section of the Lesson Plan.

³⁹ National Ski Patrol, (2004) p.60

Lesson Plan

	Introduction	Body	Summary
Purpose	To engage the learner to help them focus on the lesson, to motivate them.	To present the new information or skills.	To provide closure on the subject.
Goals			
Suggested Actions			

Lesson Review

Lesson Plan

	Introduction	Body	Summary
Purpose	To engage the learner to help them focus on the lesson, to motivate them.	To present the new information or skills.	To provide closure on the subject.
Goals	<ol style="list-style-type: none"> 1. Introduce the topic 2. Relate it to their past experience/beliefs 3. Show how it is applicable and useful 	<ol style="list-style-type: none"> 1. Deliver the actual content. 2. Provide opportunities to interact with the new information. 3. Provide feedback. 	<ol style="list-style-type: none"> 1. Refocus attention on the objectives. 2. Monitor - ensure learning has been internalized. 3. Evaluate (Monitoring and evaluation will be discussed in more detail later in the lesson)
Suggested Actions	<ul style="list-style-type: none"> • Show a brief video • Relate a scenario • Discuss objectives • Identify what they know using an activity • Identify their past experience by asking questions • Ask how the new knowledge can be used 	List should include strategies as outlined in Lesson 6.	<ul style="list-style-type: none"> • Ask specific questions (group discussion) • Relate the learning to personal experience and weigh the information for personal value. • Have small groups summarize and present the concepts • Debrief and match summaries to the objectives • Observe skills • Test knowledge/skills

It takes a considerable amount of planning for lessons to be presented effectively. Without a plan, it becomes difficult to ensure objectives are being met. But plans cannot be written in stone. Flexibility is important as course participants in each class will differ in their level of skills and knowledge than previous classes and therefore will have different needs. Thus, your plan must include back up plans and activities to address all possible circumstances. This is a skill that you will develop over time as you gain experience.

Lesson Activity

In your groups, create a full lesson plan for the topic Nordic Walking from the previous lesson.

While working on the (or any) lesson plan, you might find the following list of questions useful.

- What are the objectives?
- Do I have a firm understanding of the content?
- Are the objectives understood?
- Is the objective made relevant to the learners?
- Have I identified what the learners already know?
- Does the introduction hook into the learner’s previous experience?
- What strategies can I use to deliver the content?
- How can I help the learners integrate the new information?
- Are there skills required?
- How do I transition the knowledge to application and problem solving?
- How do I ensure the knowledge or skill has been internalized?
- What key points need to be reviewed?
- How do I ensure objectives have been met?
- Are the learners prepared for a final evaluation if one exists?

Lesson Activity

How do you know when a learner has mastered a skill, embraced a concept or internalized a process? Through monitoring and evaluation. In the chart below, determine if the listed purpose or characteristic is monitoring or evaluation.

Purpose/Characteristic	Monitoring or Evaluation
Determine satisfactory progress	
Determine if learning has occurred	
Occurs at the end of a section or lesson	
Check to see if learners are mastering incremental steps	
Immediate learning that aids in short term planning	
Check to see if learners have mastered major steps	
Occurs frequently	
Tends to be formal	
Determines satisfactory completion of the program	

Lesson Review

Purpose/Characteristic	Monitoring or Evaluation
Determine satisfactory progress	Monitoring
Determine if learning has occurred	Evaluation
Occurs at the end of a section or lesson	Evaluation
Check to see if learners are mastering incremental steps	Monitoring
Immediate learning that aids in short term planning	Monitoring
Check to see if learners have mastered major steps	Evaluation
Occurs frequently	Monitoring
Tends to be formal	Evaluation
Determines satisfactory completion of the program	Evaluation

As we have discussed several times throughout the lessons, it is important to know what your learners already know. Knowing this, in addition to knowing what the objectives of learning are, will help you establish realistic expectations about acceptable performance. When you know your learners, you can better identify their capabilities. An important fact to note is that you need to base your assessments on objective observations rather than on your attitudes and feelings.

Through the activity above, you should have discovered that monitoring consists of continually checking the learner’s progress. This also known as Formative Evaluation. It helps you “determine to what extent the learning activities are producing the desired results”.⁴⁰ If expectations are not being met, you have the opportunity to modify your approach and try other strategies. This is where the flexibility of your lesson plan comes into play. You can’t move on in a lesson plan until your learners have met the objectives. A word to the wise, set up learners for success. As was discussed in feedback, avoiding the wrong, wrong, wrong scenario, avoid the “Gotcha!” game by avoiding trick questions or complex activities.

Evaluation consists of conducting assessments of knowledge or objective assessments of observable learner behaviours. Evaluation usually occurs at the end of a section or lesson but learners should know early on, preferably at the beginning, how they will be evaluated. This is also known as Summative Evaluation. If designing your own evaluation tools, it takes considerable time to develop. The five “W’s” may help you in the design and development of evaluation instruments.⁴¹

⁴⁰ National Ski Patrol, (2004) p 54

⁴¹ National Ski Patrol, (2004) p 58

The Five “W’s”

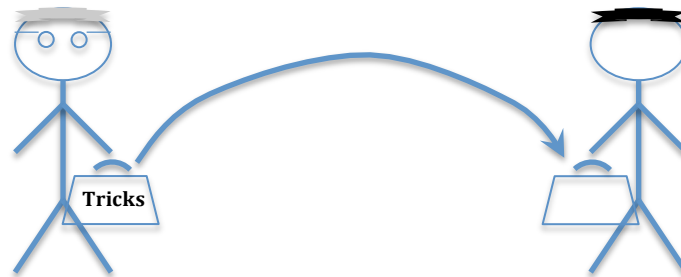
WHAT What concluding objectives are to be evaluated At what learning level is the objective to be evaluated. What observable behaviours will check for learning mastery What scoring scale/guide will be used	WHEN During or at the conclusion of a lesson Specific points in the lesson
	WHO Who will perform the evaluation Self, peer, instructor, external Are multiple evaluators required
WHY To determine the learner’s knowledge To check skill ability To group learner’s for practice To refine and modify the program	HOW Written Performance Type of scale to be used

Helpful Hint
 If your course is one that will last more than a day or two, it is good advice to keep a student assessment portfolio. The portfolio should include a history of learning activities and performance including self-evaluations, performance evaluations, test results, and instructor notes. This portfolio should be reviewed periodically with the learner so they are constantly fully aware of their progress, (their strengths) and understand what is required (areas needing improvement) to complete the class successfully.

Lesson Review

As the facilitator leads the group discussion on participant concerns of being set free to teach, you will quickly discover that you cannot become a proficient instructor just by participating in an ID course. "Learning is the process whereby knowledge is created through the transformation of experience."⁴² It takes time to gain the experience and insight comes with that time. But time is not enough if you have nothing to compare to, or a guide to point you in the right direction. A mentorship program can meet those needs. Mentoring programs pair skilled, experienced instructors with those of less experience with not only the goal of developing the skills and competencies necessary to be a good instructor but also focusing on development of the individual.

Skilled instructors develop a bag of tricks over time from which they can pull solutions to difficult situations.



Without a mentor it can take years for an instructor to fill that bag. Having a mentor provides the instructor trainee access to experience that would otherwise take a great deal of time to attain.⁴³

The purpose of the following sections is to provide direction for mentoring instructor trainees. By no means does it represent all there is to know about the subject. A good mentor will only use this as a guide and draw from many sources including his or her experience. The instructor candidate's role is to draw on that experience to become a skilled instructor.

Helpful Hint

Mentoring, based on adult learning principles, can be viewed as guided learning. This task is so important that it cannot be left to informal means and should be cultivated by a structured system that is focused on professionalism

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⁴² Kolb (1984, p. 38.)

⁴³ NSP (2001, p. 6)

⁴⁴ Cox (2006)

Lesson Activity

The facilitator will have posted flipcharts around the room. They will be titled Organization, Mentor and Protégé. In pairs, start at a flip-chart and list/contribute one thought/comment related to the roles/obligations of each with the supplied markers. After two minutes, learners will rotate to the next flip-chart. The learners now read the comments of the other learners and add two more thoughts/comments to the list without duplicating what is there. The rotation continues every two minutes until learners have had the opportunity to contribute to all of the flip-charts. Once complete, the learners are to review all comments and add any final thoughts they may have. The facilitator will debrief the comments with the class.

Lesson Review

The obligation of an organization is to:

- Develop effective mentors
- Develop trained, skilled instructors,
- Provide high quality content
- Support mentors
- Support instructors.

The challenge for the organization is to inspire the mentor and the protégé towards the vision of mentoring and is the key to the transformation of the newcomer into the job and organizational customs.⁴⁵ Peer mentoring is an effective way to accomplish this transfer of information⁴⁶ [organizational customs, culture].

The responsibility of the mentor is to bring about the transformation of the individual, enabling him to realize his fundamental interdependence.⁴⁷

This is accomplished:

- Through fostering a relationship with the protégé,
- By providing opportunity to participate and develop experience
- To train and guide the protégé in the art of teaching.

The relationship is an ongoing one that evolves from demonstrating, to observing to eventually becoming a peer and a resource.

Some actions of the mentor could be:

- modeling
- listening
- assisting in the discovery of knowledge through collaborative reflection on active learning experiences.

The responsibility of the Protégé is

- To ask questions
- Demonstrate interest in learning
- Work on becoming independent
- Communicate clearly
- Strive to emulate the mentor
- Aim to become competent in skills
- Be self-directed.

⁴⁵ Cox (2006)

⁴⁶ Pullins, Fine, (2002, p.262)

⁴⁷ Cox (2006)

The following three Appendices (Five Phases of Mentoring, Facilitators Checklist, Mentor’s Checklist) will assist new facilitators and mentors on their learning journey

Five phases of Mentoring

<p>Phase 1 <i>(Initiation Phase)</i> Introduction of a formal mentoring program</p>	<ul style="list-style-type: none"> • Match mentor with protégé by arranging a meet and greet in a neutral location to allow each to assess the other for suitability • Review organizational policies and administration • Review objectives • Set goals and expectations
<p>Phase 2 <i>(Cultivation Phase)</i> Direct face to face mentoring</p>	<ul style="list-style-type: none"> • The mentor’s role is to engage in psychosocial support and vocational or task training with the protégé • Observe others together <ul style="list-style-type: none"> ○ Critique, both positive and negative ○ Were the students getting it? How do you know? ○ How did the instructor motivate the students? • Collaborate and review plans together, consider timing and cues that can be used discretely • Work together assigning specific topics/roles to protégé thus allowing the protégé to gradually gain experience and have the opportunity to observe the mentor in action • Observe protégé and provide feedback (privately) during breaks (to allow the protégé to immediately apply feedback) • Provide overall feedback at the end of each mentoring session reviewing successes and potential changes for improvement • Each session, the protégé should be made responsible for more and different topics/roles, gradually responsibility • The mentor must document activities and feedback after each mentoring session.
<p>Phase 3 <i>(Separation Phase)</i> Summarize feedback and progress into a final report</p>	<ul style="list-style-type: none"> • The mentor must monitor the protégés progress and determine when Phase 2 ends. • The mentor must summarize the documented activities and feedback into a summative report • Review the summative report with the protégé • Provide the protégé with evaluation
<p>Phase 4 <i>(Support Phase)</i></p>	<ul style="list-style-type: none"> • Protégé departs into the ranks as a peer • The mentor makes him/herself available to the protégé as a resource • The mentor regularly follows up with the protégé, frequently in the beginning, reducing over time as the protégé becomes more experienced
<p>Phase 5 <i>(Review Phase)</i></p>	<ul style="list-style-type: none"> • The protégé should be encouraged to evaluate their mentoring experience upon completion and provide the evaluation to the mentor/organization • The mentor, together with the organization should review the results of the mentoring program and make any required adjustments to improve the mentoring program

Facilitator's Checklist ⁴⁸

Pre-Course

- Review textbook, appropriate instructor's manual
- Review program objectives
- Review applicable policies and procedures
- Review registration forms, completion forms and evaluation forms
- Organize learning space to match instructional plans and student needs
- Ensure that information can be seen and heard by students
- Provide student comfort level for optimal learning
- Considers all risk management factors

During Course

- Begin instruction promptly
- Avoid unnecessary interruptions and distractions
- Uses lesson guides if available
- Create and use a lesson plan in which the content meets the stated objective
- Incorporate content from previous lessons as a transition to new material
- Plan instructional time to adequately cover all relevant material
- Pace instruction according to lesson plan
- Allow time flexibility to address difficult or abstract concepts
- Display competency in knowledge of subject
- Demonstrate appropriate skills competently
- Align material presentation to a realistic expectation of student abilities
- Use a variety of methods appropriate to student needs and subject matter
- Use appropriate instructional aids
- Address multiple learning styles
- Address the specific needs of the adult learner
- Provide opportunities to learn through experimentation and discovery
- Monitor student understanding during the learning process
- Provide time for guided and independent practice
- Monitor student time on activity or skill performance
- Summarize each major phase of the lesson as well as the lesson as a whole

Facilitator Desired Characteristics

- Demonstrate the ability to communicate verbally and non-verbally
- Use effective active-listening skills
- Provide challenges appropriate to material being taught
- Provide opportunities for self-realized student success
- Encourage assisted and unassisted problem solving
- Give constructive feedback frequently and promptly
- Use questions appropriate to student needs
- Maintain skill performance at appropriate level
- Maintain objective-based evaluations
- Provide the opportunity for remediation when necessary

⁴⁸ NSP (2001 p.33-34)

Mentor's Checklist ⁴⁹

- Did I communicate effectively with the instructor trainee?
- Was I empathetic when observing and counseling?
- Did I relate to the instructor trainee on his or her level?
- Was I aware of the instructor trainee's most effective learning style?
- Did I guide the instructor trainee to the desired outcome?
- Did I coach the instructor trainee when necessary?
- Did I provide adequate time for the needs of the instructor trainee?
- Did I encourage problem solving?
- Was I successful in motivating the instructor trainee?
- Was my feedback immediate and constructive?

⁴⁹ NSP (2001 p.35)

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