**PRE- WORKSHOP READING ASSIGNMENT on:**

**“Designing Courses for More Significant Learning”**

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This document is an introduction to the ideas of Significant Learning and Integrated Course Design, the two main ideas that will be examined more closely and practiced in the forthcoming workshop.

There are two main parts to this document. The first examines the question of *why* learning about course design is important. The second looks at *how* we can intentionally design our courses to create a more powerful, i.e., Significant, learning experience for our students.

1. **Why Learning About Course Design is Important**

In my book on *Creating Significant Learning Experiences[[1]](#footnote-1)*, I define “significant learning” as “learning that changes the way people live their lives” – their personal, social, civic, or professional lives. Teachers who care about their teaching care about their students’ learning. Most such teachers can see the desirability of significant learning but worry that this doesn’t happen often enough for many of their students.

If someone decides they would like to promote more significant learning among their students, there are two questions they need to find answers to:

1. In my courses, what kind of learning has the potential to change students’ lives?
2. What kind of changes would I need to make in my teaching, to increase the likelihood of this kind of learning happening more often?

**What Kind of Learning Can be “Significant”?**

**During the Course:**

**After College:**

One way of starting the search for an answer to the first question is the following diagram:

**End of Course:**

**…**

**3. The learning ADDS VALUE to students’ lives.**

1. **Students are ENGAGED**

**2. Student effort results in SIGNIFICANT LEARNING – THAT LASTS.**

1. During the course, we need for students to be “engaged”. Students who are engaged: come to class, listen to what is being said, raise their hands to participate in discussions, do the homework after class, etc. My way of describing this is:

Students who are engaged are “willing to spend energy doing the work of learning.”

Student engagement is absolutely necessary. Without it, nothing important will happen later during the course. However, engagement is a *process*; we also need for that process to lead to a high quality *product*. And the product in this case is high quality learning.

1. By the end of the course, that process of student engagement should result in learning that we and the students can look at and say: “That learning is important and significant. And it is learning that lasts.”

We have already started the definition of “significant learning” but why do we add those two extra words, “that lasts”? The answer is that learning frequently “happens” – but it doesn’t last. Most teachers already suspect this, but let me share two pieces of research that support this observation[[2]](#footnote-2).

The first is a study where students took a course and then, at the end, took the final exam. Their grades were distributed along a range of scores. The researchers waited one to two weeks, and then called them all back to give them the same final exam, a second time. What happened? The class average, after only one week, dropped 50%! Presumably if we waited a few more weeks, it would drop some more; and another few weeks, some more; etc. That is what is called “learning with a negative half-life”.

A second study took this one step further. A group of students took a course that was taught in a traditional lecture format by a well-regarded teacher. The researchers this time waited a full year, and then collected two groups of people: (a) the people who had taken the course and (b) a group of people who had *never* had the course. Both groups took a test on the material studied in the course. Question: How much difference was there between the two groups? About 15%. This implies that all that work that we teachers put into teaching our courses, one year later results in only a 15% increase in student knowledge of the subject, compared to people who had never had the course.

1. After the course: We also want the learning which happens by the end of the course, to have a positive impact on students’ lives after they finish college and continue on with their lives. There are multiple ways of describing the general ways that college-level learning can have an impact on people’s lives, but I find it helpful to imagine four kinds of impact:
2. Personal Life – When someone like me takes a course in philosophy, literature, or music appreciation, it is not primarily to get me a job. It is to enhance my ability to find meaning in thinking about life issues, reading a poem, or listening to a concert – because someone taught me how to create meaning out of these activities.
3. Social Life – We can also learn how to interact with the various people we encounter in our lives: our family, our neighbors, strangers, store clerks, etc. We have all seen positive and negative ways these interactions occur. Our individual lives and our society both become better when we learn how to interact in positive ways.
4. Civic Life – People also have the opportunity to participate in various kinds of community, ranging from our family, to our local community, to the nation state, to world interest groups. Knowing how to identify a role and make a positive contribution in these various communities enhances everyone’s lives.
5. Professional Work – Much of what we do in higher education these days is aimed at preparing students for future professional work. This is appropriate and should be continued.

Now, going back to the diagram on page 1, we want all three of these actions to happen in our courses: We want students to be engaged; we want that engagement to lead to important kinds of learning by the end of the course; and we want that learning to add value to their lives after the course and after college.

That is a lot of “moving parts” to keep track of. How can we simplify this task? My suggestion is to focus on Task #2: Make sure that, by the end of the course, students have learned something important – that lasts. Why focus on this? Because that which we will have to do, to make sure important learning happens, will ensure that the other two happen. To get high quality learning to happen, we will have to teach in a way that engages students. And using my definition, high quality learning is learning that adds value to students lives after college. So, how do we get high quality learning to happen?

**How Can We Ensure That Students Have a Significant Learning Experience?**

When we look at everything we do as teachers, it seems to me that all the activities are simply specific examples of one or another of four general kinds of tasks, as illustrated in Figure 1 (next page):

Figure 1

**Four Fundamental Tasks of Teaching**



To explain this diagram:

1. Knowledge of the Subject Matter: All teachers need to have a solid grounding in the subject they are trying to help others to learn about.
2. Designing Learning Experiences: Before the course begins, we have to make a variety of decisions about how we want the course to happen, e.g., what are we going to have students read, how will we assess their learning, what will happen in class, will we use small group activities, do we intend to use reflective writing.

Although there is some overlap in the timing of the four tasks [as I have tried to illustrate in the diagram], for the most part, the first two Tasks happen *before* the course begins. Once the course begins, we start doing the other two tasks.

1. Interacting with Students: We interact with students in multiple ways: we lecture, lead class discussions, meet with students in our office, email them, etc. All the different ways we communicate with students are different forms of interacting with them.
2. Managing the Course: This refers to all the “data” and “things” we must keep track of and manage. *Data*: We have to know who is enrolled in the course, who has dropped it, who has taken a test, who re-took it a second time, which grade counts, and so forth. *Things*: When students write and turn in papers or other projects, we have to keep them and not lose them before we grade them and return them to students.

If one can accept the general idea that everything we do as teachers represents one or another of these general tasks, then I also offer one belief and two observations about these four tasks.

Belief: My belief is that the quality of student learning is a direct result of how well teachers accomplish these four tasks. Anyone who does all four of them well, will see more high quality learning happen for more students. And anyone who does one or more of them poorly, will see lower quality learning.

Of course, the actions of the teacher are not the only major factor that determines whether high quality learning happens; the other major factor is student motivation. Do they “spend that energy doing the work of learning” that was mentioned above? But “student motivation” is not something with a fixed quantity. What the teacher does can enhance or inhibit student motivation.

We have probably seen this in our own lives as students but we certainly have seen it in the lives of our students. The same student can go into one course and work hard and learn well; that same student can go into another course, isn’t motivated and therefore doesn’t learn well. Sometimes there is just a serendipitous match-up between the subject of the course and pre-existing student interests. But often there is something the teacher in the first course does that motivates lots of students to spend that energy necessary to do the work of learning.

Two Observations: The **first observation** is that college teachers collectively are not equally well prepared for each of these four tasks; they are better prepared for some than others. Here is my observation, after spending four decades working with college faculty:

* Most college professors have enough knowledge of the subject matter they teach, to teach their courses well. The reason is that everything involved in getting through graduate school, the job application process, and the tenure and promotion review process – are all focused on: Does this person know a lot about their subject matter? There is of course variation among teachers in the depth of their knowledge and we all need to continually add to our knowledge, but this is rarely a major bottleneck to good or better teaching.
* Most college professors also manage their course adequately. I have only seen a handful of professors who were so disorganized that it adversely affected student learning.

The two major variables that account for most of the variation in student learning are the other two Fundamental Tasks, but the variation among college teachers on these two tasks is different.

* Interacting with Students: Some teachers have an ability to interact with students that they have developed over the course of their lives; others have not yet developed that ability. But the variation among all college teachers that I have witnessed follows a bell curve profile:

**+**

**-**

**--**

**++**

Low High

Some teachers are really good (++); some are good (+); some could be better (-); some are really poor (--). Overall: 50/50.

* But when it comes to designing learning experiences, teachers do not follow a 50/50 profile. It looks more like this:

Low High

Some professors have had the benefit of learning about instructional design, either (a) through preparation for K-12 teaching before going on to college teaching, or (b) in one of the handful of programs for graduate students on college teaching. But most professors have not had any formal preparation on how to design their courses properly and hence do not do it very well – not because they are inept but because no one has ever taught them how to do it.

The **second observation** is that, because most professors have not learned how to design their courses properly, that is the cause of the majority of the problems they have in their teaching.

During my several years working as a faculty developer, I have seen the many different kinds of problems teachers have with their students, e.g., students not doing the homework, not paying attention in class, not coming regularly to class, “learning” but not learning “well”.

There are a variety of things we can do as teachers about these problems, all related to the Four Fundamental Tasks. We can acquire more up-to-date material about the subject matter from the literature on the topic (Knowledge of Subject Matter); we can design our courses in a learning-centered way (Designing Learning Experiences); we can learn how to interact with students in a more dynamic way (Interacting with students); or we can get more organized for handling the management of the course (Managing the course).

But my experience is that, for the majority of these problems, learning how to design one’s course properly will do more to solve them – than any other *single* thing the teacher can do. To illustrate this, let me share three common problems and some possible responses. Think about which of these responses would do the most to solve these problems.

1. Low Levels of Student Interest. This reveals itself in such things as class absenteeism and low levels of engagement. Possible responses:
   * Take a workshop on how to lecture more effectively (Interacting with students)
   * Look in books and journals for current material illustrating the latest cutting edge research or applications of this material (Knowledge of Subject Matter)
   * Redesign the course to replace some lecturing with more active learning. (Designing learning experiences)
2. Students come to class unprepared. They have not done the readings or other homework. Possible responses:
   * Assign several penalties for not doing the homework (Managing the course)
   * Give students a “pep talk”, e.g., “Come on, students. You don’t want me to lecture. We want to have a discussion, but we cannot have a discussion unless you do the readings. Please, DO the readings!” (Interacting with students)
   * Redesign the course to give the students a *reason* to do the readings, not a “club” reason but activities where they can see the value of the learning (Designing learning experiences)
3. Students display learning on the tests but their learning doesn’t last. This is the “retention of learning” problem. Possible responses:
   * Find and use more dramatic, i.e., memorable, examples to illustrate the meaning of the material. (Knowledge of the subject matter)
   * Make the tests better or tougher: “You won’t pass this course unless you *really* know the material.” (Managing the course)
   * Redesign the course to give students more experience *using* the material rather than just *hearing* or *reading* the material, in the belief that using the material will result in greater retention of their understanding. (Designing learning experiences)

My experience with teachers has been that, while all of these responses truly can help with these problems, it is the third response, changing the way the course is designed, that will do *more* to solve each of these problems than any other single response.

**Different Ways of Designing Courses**

Now we are ready to begin the process of learning how to design our courses for more significant learning. It will be helpful to recognize that there are three general ways of designing courses, each with different advantages and disadvantages.

1. **Topic-Centered Course Design**. This is by far the most common way of designing courses. This is what professors have been doing for centuries, and unless we learn how to do it differently, we generally “teach the way we were taught”, meaning in this case, we create courses the same way we saw them being taught.

To design a course this way, one simply has to complete two tasks: Identify the major topics for the whole course and then allocate the appropriate amount of time for each topic, e.g., one week, two weeks, or whatever.

Advantages: The big advantage of this is that it is very easy for the teacher to do, especially if she has confidence that the textbook she is using has done a good job of identifying the important topics. Being easy also means it doesn’t take much time at all to “design” a course. And that is important for busy people like college professors.

The other big advantage is that students are familiar with it; most of their courses have been organized this way: “If it is Week #3, it must be time for the 3rd topic on the syllabus.”

Disadvantages: As attractive as the “low time requirement” is, this approach often leads teachers into believing that their role is to “deliver information” about topic 1, topic 2, and so on until the end of the course. Unfortunately, this seems to result in a “double-leveled dumping process”: We dump information into students’ heads, and they dump it out after the exams.” The common result: courses designed this way often result in both low student engagement and poor learning, poor in both quantity and quality. Consequently, teachers sometimes then look for a new way, and a common new way is to shift from a “topic-centered” to an “activity-centered” way of designing courses.

1. **Activity-Centered Course Design.** In this version of course design, teachers keep the same structure of, say, a topic a week, but decide that the problem was that they got lured into doing too much lecturing about each of the topics. So they start using more Active Learning. They insert a case study in Week 2, a role play in Week 4, a field project near the end of the course, and so forth.

Advantages: Using more active learning will often succeed in generating more student interest and engagement. In fact, the sub-titles of most of the books on active learning usually refer to increasing student interest and motivation. And this will definitely improve student learning.

Disadvantages: However, just inserting more active learning into a course does not by itself solve the structural problems. What basis do we have for putting the case study in Week 2 rather than in Week 5; or what basis does it give us for changing the way we assess student learning. There is also still an integration problem: What ensures that the course topics build on themselves and lead to some major learning outcome? Could we, for example, teach the topics forward (from #1 in the text to the last one), or in the reverse order? And finally, it does not provide a basis for students knowing why this course is important: What are the intended learning outcomes?

1. **Learning-Centered Course Design.** What we need, to solve these various concerns, is a way of designing courses that has three general characteristics:
2. It is systematic, meaning there are certain questions that need to be answered when designing a course, and these need to be answered in a certain sequence because the answers to some questions depends on the answers to other questions.
3. It is integrated. This has two meanings: functional integration and chronological integration. Functional integration means the learning and assessment activities reflect the desired learning outcomes. Chronological integration means there is a rationale for the sequence of topics or foci of the course, and the topics build on each other in a dynamic way.
4. Most importantly, the course is learning-centered, meaning the whole design process is focused on ensuring that students achieve important kinds of learning.

The model of **Integrated Course Design** is an approach to designing courses that has all three of these characteristics. First, it is systematic. In this workshop, we will introduce the specific questions that need to be answered – in the sequence that they need to be answered. Second, it is by definition integrated. We introduce specific tools that will help you accomplish both functional integration and chronological integration. Third, it is learning-centered.

The next section of this Introduction introduces both the Taxonomy of Significant Learning and the model of Integrated Course Design (ICD). The Taxonomy helps you identify important kinds of desired learning outcomes; ICD enables you to identify the course activities that increase the likelihood of students achieving those learning outcomes!

1. **Integrated Course Design**

We now turn to a discussion of the specific procedures involved in Integrated Course Design. What do we need to do, to create a set of learning experiences that increases the likelihood that a high level of Significant Learning will happen for a large proportion of the class? We will begin with an overview, using the diagram in Figure 2.

Figure 2

**The Key Components Of INTEGRATED COURSE DESIGN**

**S i t u a t i o n a l F a c t o r s**

**Teaching &**

**Learning**

**Activities**

**Feedback &**

**Assessment**

**Learning Goals**

The first component in the model is to gather information about the Situational Factors (e.g., how many students are in the course, what kind of prior knowledge are the students bringing to the course about this subject, etc.) [This component is shown as the rectangular box, “Situational Factors” in Fig. 1.] This information is then used to make the three major decisions about the course.

After you have gathered the information about the situational factors, your first decision is about the Learning Goals, i.e., what you want students to get out of the course. What is important for them to learn and retain, 2-3 years after the course is over?

The next major decision is about Feedback and Assessment. The basic question here is: What will students need to do, to demonstrate they have achieved the Learning Goals you have set for the course? This will sometimes involve paper/pencil tests but you will probably need to include other activities as well.

Then you need to formulate the appropriate and necessary Teaching/Learning Activities. The basic question here is: For each kind of desired learning outcome, what learning activities will enable students to achieve the desired learning and perform well on your assessment activities?

And finally you need to check your course design for Integration to make sure all the components are in alignment and support each other. Are the learning activities consistent with all the learning goals? Are the feedback and assessment activities consistent with the learning goals and the learning activities? And how do you sequence all these activities throughout the duration of the learning experience, so that the activities build on each other in a dynamic way and lead to a strong conclusion?

**Criteria of Good Course Design.** The preceding diagram indicates what the essential steps or components of Integrated Course Design are. How do we know when we are doing each step in a good way? The preliminary answer to this question is indicated in Figure 3.

Figure 3

**Criteria of Good Course Design**

1. Situational Factors: When we identify important Situational Factors, we need to know more than just how many students are in the course and what level course it is. That is, we need to conduct an “In-Depth Situational Analysis”. Below, we will identify five sets of questions to help with this process.
2. Learning Goals: When we identify what we want students to learn, we need to do more than list the major topics of the content that we want students to “understand”. There are a number of taxonomies of learning that provide prompts for multiple kinds of learning that are worth considering. Here, we will use the Taxonomy of Significant Learning.
3. Assessment Activities: Author Grant Wiggins has introduced the concept of “Educative Assessment” as one way of creating more powerful assessment activities. This kind of assessment does more than simply measure what students know at a given time; students come out of the assessment knowing *more* than when they started. That is, the assessment itself educates.
4. Learning Activities: The concept of “Active Learning”, introduced by various authors in the early 1990’s, provides a good measure of when we have powerful learning activities.
5. Integration: A well-integrated course design requires both Functional and Chronological Integration. Functional means the learning goals, assessment activities, and learning activities all reflect and support each other. Chronological Integration means the various activities build on each other in a dynamic way.

Now it is time to look more closely at each of these five steps and the concepts that aid us in doing them properly.

1. **Situational Factors**

**S i t u a t i o n a l F a c t o r s**

**Teaching &**

**Learning**

**Activities**

**Feedback &**

**Assessment**

**Learning Goals**

Every teaching situation has its own special set of Situational Factors that need to be considered when designing learning experiences. Some of these will call for particular responses in the course design. While every course is different, there are five kinds of Factors that cover most of the situations that teachers face.

1. **Specific Context of the Teaching/Learning Situation**

* How many students are in the class?
* Is the course lower division, upper division, or graduate level?
* How long and frequent are the class meetings?
* How will the course be delivered: live, online, or in a classroom or lab?
* What physical elements of the learning environment will affect the class?

1. **General Context of the Learning Situation**

* What learning expectations are placed on this course or curriculum by: the university, college and/or department? the profession? society?

1. **Nature of the Subject**

* Is this subject primarily theoretical, practical, or a combination?
* Is the subject primarily convergent or divergent?
* Are there important changes or controversies occurring within the field?

1. **Characteristics of the Learners**

* What is the life situation of the learners (e.g., working, family, professional goals)?
* What prior knowledge, experiences, and initial feelings do students usually have about this subject?
* What are their learning goals, expectations, and preferred learning styles?

1. **Characteristics of the Teacher**

* What beliefs and values does the teacher have about teaching and learning?
* What is his/her attitude toward: the subject? students?
* What level of knowledge or familiarity does s/he have with this subject?
* What are his/her strengths in teaching?

The teacher does not need to create responses to each of the bulleted items. But each one does need to be considered, and then a design response needs to be identified for each one that is deemed important for a particular course and set of students.

1. **Learning Goals**

**S i t u a t i o n a l F a c t o r s**

**Teaching &**

**Learning**

**Activities**

**Feedback &**

**Assessment**

**Learning Goals**

When we take a learning-centered approach to course design, the first of the three big decisions about the course is to identify the important kinds of learning for students to achieve by the end of the course. One major tool that can help in this process is a taxonomy of different kinds of learning.

A famous taxonomy for doing this is the Bloom taxonomy of cognitive learning. This has been extremely valuable since it was created in the 1950’s. But since that time, educators have identified additional kinds of desired learning that are not included in that taxonomy.

This was part of the reason that Fink felt the need to create a new taxonomy, the Taxonomy of Significant Learning. “Significant Learning” means learning that actually has an impact on how students live their lives after the course is over and even after they leave college. When Fink interviewed hundreds of students about what kinds of learning had affected them, he found their answers fell into six major categories, which he formulated into the Taxonomy of Significant Learning (see Figure 4 below).

Figure 4

**The Taxonomy of Significant Learning**

# CARING

## Developing new..

* Feelings

## Interests

* Values

# LEARNING HOW TO LEARN

* Becoming a better student
* Inquiring about a subject
* Self-directing learners

# HUMAN DIMENSION Learning about:

## Oneself

* Others

# INTEGRATION

Connecting:

* Ideas
* People
* Realms of life

# FOUNDATIONAL KNOWLEDGE

Understanding and remembering:

* Information
* Ideas

# APPLICATION

## Skills

* Thinking:
* Critical, creative, & practical thinking
* Managing projects

The basic premise of this taxonomy is that any learning experience has the potential to support all six kinds learning. Also, the more kinds of learning a course includes, the more significant it will ultimately be for students.

To create a set of learning goals [or as some people prefer to call them: Desired Learning Outcomes] for a course, the teacher needs to complete this statement:

"A year (or more) after this course is over, I want and hope that students will .”

If you use the Taxonomy of Significant Learning to complete this statement, here are some questions you might ask yourself:

**Foundational Knowledge:**

* What key information (e.g., facts, terms, formulae, concepts, principles, relationships, etc.) is/are important for students to understand and remember in the future?
* What key ideas (or perspectives) are important for students to understand in this course?

**Application Goals:**

* What kinds of thinking are important for students to learn?
* Critical thinking, in which students analyze and evaluate
* Creative thinking, in which students imagine and create
* Practical thinking, in which students solve problems and make decisions
* What important skills do students need to gain?
* Do students need to learn how to manage complex projects?

**Integration Goals**:

* What connections (similarities and interactions) should students recognize and make…:
* Among ideas *within* this course?
* Among the information, ideas, and perspectives in this course and those in other courses or areas?
* Among material in this course and the student’s own personal, social, and/or work life?

**Human Dimensions Goals:**

* What could or should students learn about themselves?
* What could or should students learn about understanding others and/or interacting with them?

**Caring Goals:**

* What changes/values do you hope students will adopt?
  + Feelings?
  + Interests?
  + Values?

**Learning-How-to-Learn Goals:**

* What would you like for students to learn about:
* Being good students in a course like this?
* Learning about this particular subject?
* Becoming a self-directed learner of this subject, i.e., having a learning *agenda* of what they need/want to learn, and a *plan* for learning it?

For most teachers, using a set of Desired Learning Outcomes like this would be a more ambitious learning agenda than they are using now. That is good, but this also then challenges us to identify the assessment and learning activities that would make it possible for to help students achieve these learning outcomes. That is the focus of the next two steps in Integrated Course Design.

1. **Feedback** **and Assessment**

**S i t u a t i o n a l F a c t o r s**

**Teaching &**

**Learning**

**Activities**

**Feedback &**

**Assessment**

**Learning Goals**

The task in this part of the process is to find an answer to the question: What would students have to do, for them and us to know how well they had achieved each of the Desired Learning Outcomes? This means we need to identify specific kinds of assessment activities that are *appropriate* for each desired learning outcome. Working on this task will quickly lead us to a recognition of an important course design principle: We will need different kinds of learning activities for different kinds of learning outcomes.

The following is not an exhaustive list, but a list to illustrate what might be appropriate kinds of assessment activities for each of the different categories of Significant Learning.

Kind of Learning Outcome: Possible Assessment Activity:

**Foundational Knowledge** Multiple Choice test

**Application Learning** Give students a situation and ask them to generate a particular response, e.g., of critical thinking, creative thinking, problem solving, or decision making.

**Integration** Essay question in which students are asked to identify the relationships between some “X” and “Y”. For example, how does the physical geography of a region affect its economic activity?

**Human Dimension:**

|  |  |
| --- | --- |
| * Learning about ONESELF | Keep a diary of reflective writing, e.g., on how various course activities impact the student’s understanding of their own thoughts and feelings about themselves. |
| * Learning how to interact with OTHERS | Have students in the class divided into teams that work together on learning about the course material. Periodically have them give feedback to each other on how well each person they perform as a member of the team. |

**Caring** Do some reflective writing about their own values and interests that are related to the subject matter of the course.

**Learning How to Learn** At the end of the course, put together a Learning Portfolio that addresses a variety of questions, e.g., their sense of what they learned in the course, how they learned it, and so forth.

**Educative Assessment:** A second major task related to Assessment and Feedback is to make sure we have *powerful* assessment and feedback activities. One concept that can help us determine this is that of “Educative Assessment.” This is the concept that suggests we should design assessment activities that go beyond telling us whether students “got it” or not; rather the assessment activities should actually help students learn more. Figure 5 (next page) identifies the major components that are needed for Educative Assessment.

Figure 5

**Major Components of Educative Assessment**



First, you have to have the right kind of assessment task. Instead of a “backward-looking” task in which the teacher looks back at what was studied in a unit and asks if students still understand and remember it, teachers should “look forward” beyond the end of the course by creating realistic life or work situations and ask students to use what they have learned to address questions or make decisions related to those situations.

Second, for each of those tasks, the teacher [and the students] need to know whether they have done a good job or not. This is the function of a Rubric. A rubric consists of Criteria and Standards. Criteria are the multiple yardsticks we use to measure the various desired qualities of a good product; Standards are the measurements on those yardsticks that tell us and them whether their work was as good as it should be.

Third, we should give students the opportunity to render an assessment of their work themselves – before they see our assessment. Why is this so important? Because after they leave our course, they will be the first ones to assess their work. So they need to develop the ability to do this properly. And that requires practice and feedback.

And that leads us to the final component: Feedback. Students need feedback that actually helps them learn, rather than feedback that just answers: “Wha’d you get?” Feedback that enhances student learning needs to be:

* Frequent: Two mid-terms and a final is *not* frequent.
* Immediate: Feedback that is given immediately has the best chance of having students attend to and learn from it. Next best – the next class session. A week or two later, they just look at what grade they got.
* Has a well-developed rubric: Students need to know what qualities make a particular piece of work “good”. Therefore, they need to know what the criteria and standards are.
* The feedback also needs to be communicated in a learner-friendly way, i.e., in a way that respects students’ integrity and their readiness to learn.

If you put together a set of assessment activities that are appropriate for each of your Desired Learning Outcomes and that meet the characteristics of Educative Assessment, you will have a good set of assessment activities.

1. **Learning Activities**

**S i t u a t i o n a l F a c t o r s**

**Teaching &**

**Learning**

**Activities**

**Feedback &**

**Assessment**

**Learning Goals**

After we have identified *what* we want students to learn and the activities by which students will indicate *how well* they have achieved each kind of learning, the next major task is to identify the activities that enable them to *achieve* these desired learning outcomes well. This is the purpose of creating good Learning Activities.

Just as we had to do with the Assessment Activities, we need to begin by identifying activities that *appropriate* for each kind of desired learning. And again, we will discover that we need different kinds of learning activities for different kinds of desired learning. The following list suggests some of these possibilities:

Kind of Learning Outcome: Possible Learning Activity:

**Foundational Knowledge** Reading assignments, lectures.

**Application Learning** Give students multiple opportunities to practice responding to particular situations and then generating a particular response, e.g., critical thinking, creative thinking, problem solving, or decision making.

**Integration** Write about or discuss question in which they identify the relationships between some “X” and “Y”. For example, how does the physical geography of a region affect its economic activity?

**Human Dimension:**

|  |  |
| --- | --- |
| * Learning about ONESELF | Keep a diary of reflective writing, e.g., on how various course activities impact the student’s understanding of their own thoughts and feelings about themselves. |
| * Learning how to interact with OTHERS | Have students in the class work in teams that work together on learning about the course material. |

**Caring** Do some reflective writing in which they think about their own values and interests that are related to the subject matter of the course.

**Learning How to Learn** Periodically do some One-minute papers or learning journals in which they identify what they think they are learning, how they are learning, what they see as the value of what they are learning, what else they might want to learn, and how they would learn that.

**Active Learning:** After we have identified a set of *appropriate* activities for the various learning outcomes we have, we then need to review our whole set of learning activities to make sure we have *powerful* learning activities. One concept that can help us determine this is that of “Active Learning.”

This is a concept that was developed by several scholars on college-level teaching in the 1990’s. They argued that, in higher education in general, we have too much passive learning, i.e., students’ learning experiences consist too exclusively of reading and listening to lectures. This has value in that students get information and ideas, which is necessary. But we need to give students more opportunities that involve students in doing things and thinking about the things they are doing. By “doing things,” they are referring to activities such as case studies, small group problem solving, debates, simulations, guided design, etc.

In my own thinking, I concluded that the concept of “active learning” needed to include the opportunity to get information and ideas. So I created an enlarged concept of “Holistic Active Learning” that has three categories of activities, as indicated in Figure 6.

Figure 6

A Holistic View of Active Learning

When I examined descriptions of published reports of what seemed to be good courses and asked what these teachers did to provide active learning, what they did led to the creation of Table 1 [shown on the following page] that identified some of the possibilities for each of the three types of learning activities for Active Learning.

Table 1

**LEARNING ACTIVITIES FOR HOLISTIC, ACTIVE LEARNING**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **GETTING**  **INFORMATION & IDEAS** | **EXPERIENCE** | | **REFLECTIVE DIALOGUE, with:** | |
| **"Doing"** | **"Observing"** | **Self** | **Others** |
| **DIRECT** | * Primary data * Primary sources | * “Real Doing,” in authentic settings | * Direct observation of phenomena | * Reflective thinking * Journaling | * Dialogue   (in or out  of class) |
| **INDIRECT,**  **VICARIOUS** | * Secondary data and sources * Lectures, textbooks | * Case Studies * Gaming, Simulations * Role Play | * Stories   (can be accessed *via:* film, oral history, literature) |
| **ONLINE** | * Course website * Internet | * Teacher can assign students to "directly experience \_\_\_\_\_.” * Students can engage in "indirect" kinds of experience online. | | * Students can reflect and then engage in various kinds of dialogue online. | |

1. **Putting It All Together: INTEGRATION**

**S i t u a t i o n a l F a c t o r s**

**Teaching &**

**Learning**

**Activities**

**Feedback &**

**Assessment**

**Learning Goals**

**INTEGRATION**

After you have identified your Learning Goals and appropriate and powerful Assessment Activities and Learning Activities, the final step is to put these activities together chronologically in an integrated and dynamic way. During the workshop we will introduce some tools for doing this. But for now, there are two important principles related to this task.

1. You must put ALL the assessment and learning activities into the course.

* Otherwise you don’t have the activities needed to drive or support the learning outcomes you say you want.

1. It makes a big difference how you SEQUENCE the activities.

* They need to build on each other in a dynamic way that leads to a powerful concluding activity.

On the second point, about sequencing the activities, the diagram on the next page illustrates what we mean by having activities that “build on each other”. Learning Activities “A” need to prepare students for Learning Activities “B”, which need to prepare them for Activities “C”, which need to be the final preparation for a good Culminating Project. This is so much more dynamic that simply exposing students to information on Topic #1, then additional information on Topic #2, etc., etc.

This sequence can be applied to a single unit within the course or to the whole course.

One other important concept related to “Putting It All Together” is the concept of a Teaching Strategy. This is something different from a Teaching Technique. The latter consists of specific teaching-learning activities, e.g., lecturing, small group discussions, a case study, etc. You want to develop good teaching techniques but these are not what make your course powerful or weak. Your Teaching Strategy, in contrast, is the particular combination and sequence of techniques. Pay a lot of attention to this because this is what will make your course powerful or weak.

Sometimes you can use a general teaching strategy that has been developed by others and which can be applied in most any kind of course, e.g., team-based learning or problem-based learning. Or you can create your own teaching strategy. To either identify your current strategy or create a new one, one tool you can use is the “Castle-Top Diagram”:

**The Castle-Top Diagram:**

**A Tool for Identifying Your Teaching Strategy**



When you fill in each of the boxes above and below the horizontal line, you are identifying the combination and sequence of your learning activities, i.e., your Teaching Strategy. So everyone has a teaching strategy but some strategies are more powerful than others in terms of creating student engagement and powerful kinds of learning. So you want to pay close attention to your teaching strategy when you design your course.

**Concluding Review**

If you want more students to have a Significant Learning Experience, i.e., one that actually affects the way they live their lives after college, then you need to (a) learn how to identify the kinds of learning that have this potential, and (b) intentionally design those kinds of learning into your courses.

The Taxonomy of Significant Learning provides a conceptual framework for identifying the kinds of learning you might want to establish as Learning Goals for your courses. The model of Integrated Course Design provides guidelines for creating the kinds of learning experiences that will help our students achieve high levels of Significant Learning.

The five main steps of Integrated Course Design include the following:

1. **Situational Factors:** You begin by identifying some of the Situational Factors that are likely to have a major influence on how your course operates. For each of these that are important, you identify specific responses that you need to make in the design of the course.
2. **Learning Goals:**  In a learning-centered approach to designing your course, the first major decision you need to make is: What do you want students to have learned, by the end of the course? This is where you use the Taxonomy of Significant Learning, to help you set an ambitious set of learning goals.
3. **Assessment and Feedback:** For each Learning Goal, you need to identify the appropriate Assessment Activities: What do students need to do to clearly indicate to you and to them, how well they have achieved each of the Learning Goals? The ideas of Educative Assessment will also help make your Assessment Activities more powerful.
4. **Learning Activities:** Similarly, or each Learning Goal, you need to identify the appropriate Learning Activities: What do students need to do, to learn the concepts, skills, attitudes, behaviors, etc., so they can perform well on the Assessment Activities? The ideas of Active Learning will also help make your Learning Activities more powerful.
5. **Integration:** The Final Task is to make sure all the Assessment Activities and the Learning Activities are sequenced in a way that is dynamic and that builds on itself. That is, each activity builds on what when before it and prepares students for what comes after it. The concept of a Teaching Strategy also helps create a powerful sequence of activities in a course.

In the workshop, you will be given multiple tools to help you with each of the steps in this design process. Meanwhile, we hope these Introductory Comments have given you a good overview of the whole process, one that prepares you for the practice and feedback on each of these steps that you will get in the workshop!

1. Fink, L.D. *Creating Significant Learning Experiences,* Jossey-Bass [Orig. edition, 2003; Updated edition 2013]. [↑](#footnote-ref-1)
2. These two studies are described more fully and cited in my book, *op. cit.,* Chapter 1, p. 4. [↑](#footnote-ref-2)