|  |  |  |
| --- | --- | --- |
|  | Defense Acquisition University  Contact: Debra Moore  debra.moore@dau.mil  Office: 703-805-4535 | Enspire Learning, Inc.  ID Lead: Robert Bell  robert.bell@enspire.com  (512) 472-8400 ext. 260 |

**Defense Acquisition University**

**FPD 200: Participant Guide**

**Module 2: Lesson 4 – Instructional Strategies**

**Script**

**January 20, 2012**

Lesson 3: Instructional Strategies 2

Section 1: Introduction 3

Section 2: What are the Elements of Instructional Strategy? 3

Section 3: How Do I Develop an Instructional Sequence for a Learning Asset? 4

Section 4: What are Gagne’s “Nine Events of Instruction” and What Do They Say About

Section 5: How Do I Select Appropriate Instructional Methods for My Learning Asset? 12

Section 6: What’s Next? 16

Lesson 3: Instructional Strategies

Topics for This Lesson

* Instructional strategy
* Instructional sequence
* Hierarchical analysis of learning objectives
* Gagne’s “Nine Events of Instruction”
* Instructional methods

What You Will Be Able to Do

* Lesson TLO: Produce an instructional strategy for a selected learning asset, based on defined on a defined assessment strategy and learning objectives.
* Participant Guide ELOs:

1. Explain the sequence and context of instructional strategy development in the design phase.
2. Define the elements of instructional strategy.
3. Describe a procedure for developing an instructional sequence for a learning asset.
4. Identify common means of sequencing instruction in a learning asset.
5. Identify Gagne’s “Nine Events of Instruction.”
6. Explain how Gagne’s “Nine Events” inform instructional sequencing.
7. Identify potential instructional methods.
8. Describe key considerations in defining instructional methods.

Assessment

The assessment for this lesson will consist of:

* A lesson quiz in which you will be expected to demonstrate all of the stated ELOs for this lesson.
* A writing assignment in which you will be expected to produce an instructional strategy for a selected learning asset, including an instructional sequence and set of methods, with an accompanying explanation of your strategic choices.

Section 1: Introduction

ELOs for this section

1. Explain the sequence and context of instructional strategy development in the design phase.

Effective instruction requires planning. In instructional design, planning begins by defining the desired outcomes of a learning asset. By defining outcomes first, the instructional designer can then determine how learners’ mastery of those outcomes will be measured and what specific instructional methods that will be employed to support mastery. This is called *backward design.*

Backward design seems counterintuitive, but instructional designers needs to know where their audience to end up before they can know how they are going to observe and measure learners’ performance and what instructional means will be used to enable the desired performance. Think of it like vacation planning – you have to first decide on a destination before you can plan where you are going to stay and how you are going to get there.

Lesson 2, we learned how to develop observable and measurable learning objectives that fully describe the desired outcomes of a learning asset. In Lesson 3, we saw how an assessment strategy defines the particular methods that will be used to observe and measure performance that aligns with the learning objectives. The final step in this backward planning process is to consider how to determine an *instructional strategy* that fully aligns with learning objectives and the assessment strategy of a learning asset.

This lesson will discuss the elements of an instructional strategy and the practices involved in its development.

Section 2: What are the Elements of Instructional Strategy?

ELOs for this section

1. Define the elements of instructional strategy.

*Instructional strategy* is a term that describes two distinct elements of instructional design:

* *Instructional sequence:* the order in which the learning objectives are presented in the learning asset in order to support learners’ mastery.
* *Instructional methods:* the specific instructional activities that will deliver content and present opportunities for learners to practice and assimilate the learning objectives contained in the instructional sequence.

The following sections of this lesson discuss these elements in detail.

Section 3: How Do I Develop an Instructional Sequence for a Learning Asset?

ELOs for this section

1. Describe a procedure for developing an instructional sequence for a learning asset.
2. Identify common means of sequencing instruction in a learning asset.

There is no “one size fits all” approach to sequencing instruction, but there are some general principles to to guide the instructional designer. One of these is the principle of *articulation.* Articulation is how the content segments relate to one another within the lesson. Simply put, the instructional sequence must be logical and make sense. For example, it makes sense to introduce new skiers to the equipment they need and how that equipment works before involving them in skiing practice. If the instructor were to begin with practice before instructing new skiers in the equipment, there is a good chance that they would misuse the equipment, potentially increasing their risk of injury.

Instructional objectives provide a good starting point for determining the sequence of instruction. A hierarchical analysis of these objectives provides insight into how the concepts and skills in these objectives should be sequenced – from simple to complex, first to last, etc. At each point, the designer needs to ask if there are subskills or subconcepts that the learner needs to have completed in order to process the following learning objective.

A basic procedure for conducting a hierarchical analysis of the objectives for a learning asset includes the following steps:

1. Compile all the learning objectives in a list. Be sure to group all ELOs under their respective TLOs.
2. Sequence the ELOs so that each of them supports the ELO that follows it and, collectively, the ELOs their respective TLO.

TLO

ELO 1

ELO 2

ELO 3

ELO 4

Simple

Complex

Subordinate

Superordinate

In following this procedure, instructional designers need to think about how the overall learning asset may be organized. The following questions can help them in making this determination:

* Do the TLOs lend themselves to unit or lesson objectives in a training program? If so, it may be appropriate to think about sequencing the TLOs according to the units and/or lessons that will comprise a module, course, or training program.
* Is there an adequate number of related TLOs to merit the development of a course or program? For example, if an instructional designer determines that only one TLO is required to address the organization’s instructional goals and needs, he or she may decide that a full course or module is not necessary. Instead, it may make more sense to sequence the objectives for a discrete knowledge sharing asset, such as a podcast, video demonstration, or casual game.
* Can one reasonably expect learners to master all the ELOs listed under the TLO within the proposed unit or lesson? If not, it may make sense to divide the ELOs into more manageable units or lessons.

It is possible to outline a high-level sequence of instruction, according to the hierarchical analysis of learning objective. This outline includes the order of units and/or lessons in a course or training program, and the sequence of specific ELOs within a lesson or a discrete knowledge sharing asset. The following frameworks can be used to guide the sequencing of instruction within this outline:

* *Chronology:* Some subjects, such as historical subjects, naturally lend themselves to being sequenced according to the chronological order of the events being covered. In these cases, the sequence of objectives in learning asset should follow the specified chronology of the subject.
* *Procedural order:* If all or part of a learning asset instructs learners in a procedure, it may make sense to arrange the objectives in that asset according to the sequence of steps in the procedure.
* *Categories:* If the TLOs and/or ELOs in a learning asset correspond to particular categories within an overall concept, the instructional designer should define a sequence of instruction that best presents those categories to the target audience.
* *General to specific:* It often makes sense for learners to assimilate general concepts and theories before learning about specific details within those concepts, including procedures, facts, and formulas. This is similar to the “inverted triangle” structure on which newspaper articles are traditionally written – summarize the big ideas in the content before delving into specifics that support those ideas.
* *Simple to complex:* It is frequently a good idea to ensure that learners master the simplest objectives before advancing to more complex learning outcomes. In fact, this is the order of learning prescribed by the cognitive process levels in Bloom’s Taxonomy, which we covered in Lesson 2. And, as we pointed out in Lesson 3, your assessment strategy should be structured so that learners perform the simplest cognitive processes and knowledge before they are expected to demonstrate higher levels of complexity. Therefore, it is almost always a good idea for instructional designers to incorporate a sequence of objectives from simplest to most complex.
* *Less risky to more risky:* When the subject of instruction involves learners’ assimilation of potentially risky procedures, such as operating hazardous equipment, it makes sense for objectives to be sequenced so that learners can master the least risky procedures in order to prepare them to perform riskier procedures.
* *Known to unknown:* As we discussed in Lesson 2, learning objectives build on what learners can be presumed to already know prior to the intervention of the learning asset. Likewise, it frequently makes sense to sequence TLOs and ELOs so that the instruction that follows one objective builds on the knowledge and skills mastered in the previous objective.

Note that these frameworks are not mutually exclusive. For example, the sequence of modules and lessons in FPD 200 follow a procedural order that aligns with the phases and steps of the ADDIE model of instructional design. At the same time, all of the individual lessons in FPD 200 begin with a general introduction before discussing specifics related to the ideas covered in the introduction. They are also sequenced to activate prior knowledge from preceding lesson and modules before introducing facts and concepts that are unknown to the target audience. In this way, we have incorporated multiple approaches to instructional sequence in order to ensure that the order of instruction is logical to our audience while supporting them in developing mastery in the subject of ADDIE and instructional design.

In the case study for this lesson, you will read an example of how instructional designers at DAU use this general procedure to arrange learning objectives into a sequential outline for a training program.

Section 4: What are Gagne’s “Nine Events of Instruction” and What Do They Say About Instructional Sequence?

ELOs for this section

1. Identify Gagne’s “Nine Events of Instruction.”
2. Explain how Gagne’s “Nine Events” inform instructional sequencing.

Instructional sequence applies to more than the high-level organization of a learning asset. Instructional designers must also carefully consider the order of instruction within particular learning experiences in the learning asset, such as individual lessons or discrete knowledge sharing assets. A model known as Gagne’s “Nine Events of Instruction” is an important touchstone for determining the sequence of instruction in a lesson plan or in the design of a discrete knowledge sharing asset.

Robert Gagne was an educational psychologist who was best known for developing what he referred to as “conditions for learning.” The conditions refer to the types of instruction that are most appropriate for specific types of learning. Their purpose is to provide a structure that will support successful instruction. His “Nine Events of Instruction” taxonomy provides a useful framework for defining the order of actions that support learning within an instructional experience.

Gagne’s “Nine Events,” in order, are:

* Gain learners’ attention.
* Share the learning objectives of the session.
* Get learners to recall prior knowledge of the subject.
* Present the content.
* Provide learner guidance to enhance understanding.
* Give learners an opportunity to practice and demonstrate what they know.
* Provide feedback.
* Assess performance.
* Provide job aids or references to ensure that learners retain and transfer what they have learned.

Gagne distinguished between two types of conditions: internal and external. *Internal conditions* can be thought of as “states” that occur within the learner. These states include motivation, recall, and attention. *External conditions* are outside events that affect the learner’s behavior. For example the arrangement and timing of events in the learning experience are external conditions. Each of the “Nine Events of Instruction” are external conditions since they are events that occur within the learning environment in order to affect the learner’s behavior. Gagne related each of these events to internal learning processes. He arranged the external events he identified with their corresponding internal conditions into a prescribed sequence that supports an enhanced learning experience.

| **Gagne’s Instructional Event** | **Relation to Internal Learning Process** |
| --- | --- |
| Gain the learner’s attention | ***Reception of patterns of neural impulses***  This event stimulates electrical impulses in the learner’s brain to make him or her receptive to stimuli. This helps to contextualize lesson and to motivate the learner. |
| Share the learning objectives of the session. | ***Activating a process of executive control***  Executive control is a focus on goal-directed actions. This event allows learners to frame the instruction in terms of learning goals. |
| Get the learners to recall prior knowledge of the subject | ***Retrieval of prior learning from long-term memory and placing it in working memory***  This event brings relevant existing knowledge to the forefront of consciousness, preparing learners to receive and process new information. |
| Presenting the content | ***Emphasizing material for selective perception***  Selective perception filters what we see and hear.  This event helps learners selectively perceive what content is and is not relevant to the stated learning objectives. |
| Provide learner guidance to enhance understanding. | ***Semantic encoding***  This event helps the learner store information in a way that allows deep processing and optimal retrieval of information at a later time. |
| Give learners an opportunity to practice and demonstrate what they know. | ***Activating response organization*.**  In this event, the learner has the opportunity to organize their understanding and apply what they have learned. |
| Provide feedback. | ***Reinforcement***  This event helps the learner establish a belief or pattern of behavior. By providing feedback to the learner, the instructor helps validate behaviors which the learner can internalize. |
| Assess performance. | ***Activating retrieval making reinforcement possible.***  In this event, the learner must retrieve the information in order to communicate what he or she has learned. The feedback on assessment provides further basis for validation and/or correction. |
| Provide job aids or references to ensure that learners retain and transfer what they have learned. | ***Provide cues and strategies for information retrieval***  Instructional methods that support information retrieval are shared with the learner in this event. This enhances long-term learning. |

It is worth noting that not every instructional event will necessarily be included in every lesson or knowledge sharing asset. For example, an assessment strategy may not dictate that learners’ performance be assessed in every lesson in a learning asset, and it is not necessary to do so, particularly if you are developing a knowledge sharing asset that does not allow any means of practice and feedback, such as a video lecture or podcast. Nevertheless, the “Nine Events” provide an excellent general sequence for instructional designers to follow when developing an individual lesson plan or for guiding the sequence of instruction in a standalone knowledge sharing asset. The following is a sample plan that demonstrates how Gagne’s “Nine Events of Instruction” can be applied to sequence an individual learning experience.

**SAMPLE LESSON PLAN**

|  |  |  |
| --- | --- | --- |
| Goal: Students will discriminate between heart attack symptoms in men and women, respectively.  ELO 1: The students will list common heart attacks symptoms in men and women  ELO 2: The students will list symptoms of heart attack that are unique to women.  ELO 3: The students will recognize the unique symptoms of heart attacks in women.  ELO 4: The student will construct a Venn diagram that differentiates the unique symptoms of heart attacks for males and females, respectively, as well as shared symptoms.  ELO 5: The students will compare and contrast heart attack symptoms in men and women. | | |
| **Event** | **Implementation** | **Internal Process** |
| Gain learners attention | The instructor shows a 15 second video clip of a woman approximately 40 years of age clearly in distress, gasping for air, gagging, and pressing her hands to lower back. The screen fades to black and a message appears: “Is this indigestion or a heart attack?” | The instructor presents stimuli to the learners that attracts their attention engaging them in the learning endeavor. |
| Share the learning objectives of the session. | Instructor informs the learner that today the class will focus on five factors that are universally recognized as symptoms in females who are experiencing a heart attack  Instructor informs the learners that the goal of the instruction is prepare them in to discriminate between symptoms that signal heart attacks in men and women, respectively.  The TLO and ELOs are displayed on the smartboard. | The instructor focuses learners’ executive control function on the goals of instruction. |
| Stimulate recall of prerequisite learning | The instructor reviews previously covered material that addresses common symptoms that males experience when having a heart attack, as well as how to recognize these symptoms. | The instructor reminds learners of relevant information that they have already addressed that relates to the current topic. This brings prior knowledge to the forefront, allowing the learner to make immediate connections between what they know and what they are about to learn. The result is to contextualize the learning experience. |
| Presenting the content | The instructor explains that symptoms of heart attacks in men may also be seen in women.  The instructor presents information on symptoms of heart attacks that are generally considered to be unique to women.  The instructor presents material explaining how to recognize symptoms unique to women experiencing a heart attack, including video examples.  The instructor uses video, pictures and verbal descriptions to compare heart attack symptoms shared by men and women as well as contrast symptoms that are unique to females with previously learned symptoms that are unique to men. | The instructor presents the lesson so that the content supports learners’ mastery of the ELOs. The ELOs are sequenced to move from the lower level cognitive processes in Bloom’s Taxonomy (i.e., remembering and understanding) to higher level cognitive processes (i.e. analysis). |
| Provide learner guidance to enhance understanding. | The instructor presents video examples of a male and a female demonstrating physical symptoms of a heart attack and demonstrates how to record observations of the event.  The instructor provides additional examples and guides students through their observations using questioning techniques that support critical observations. | The instructor models how to record observations of a heart attack and critical questioning techniques to deepen learners’ internal processing of the content and to aid retention. |
| Give learners an opportunity to practice and demonstrate what they know. | Students are asked to make a list of heart attack symptoms common to both males and females and then another list of symptoms unique to females experiencing a heart attack. They are instructed to use these lists to help them when considering the video clips that will be shown.  Students are given several video clips of women displaying examples and non-examples of heart attack symptoms. Students are asked to view each video and record their observations. They are then asked to identify which women are displaying symptoms suggestive of a heart attack. At the end of independent practice, the instructor reconvenes the class to poll them on their determinations on each clip and engage them in a discussion in which they analyze which clips are consistent with female heart attack symptoms, which clips are not consistent, and how they made these determinations.  Learners are asked to construct a Venn diagram that organizes unique and common symptoms present in male and female heart attack patients. Students are instructed to use this diagram and an observation log when viewing video clips.  The instructor presents a video with examples and non-examples of heart attack symptoms in both women and men. Students are asked to view each clip independently and use their Venn diagrams and observation logs to identify symptoms consistent with a heart attack. The instructor polls the class for their determinations on each clip and engages them in a discussion in which they explain which clips are consistent with male and female heart attack symptoms common to both men and women. Students compare and contrast the examples of male and female symptoms based on their observations. | The student is given the opportunity to cognitively organize the material through application. |
| Provide feedback. | The instructor provides feedback to the students, correcting misconceptions and reinforcing correct responses. | The instructor affirms or corrects learners’ understanding in order to reinforce mastery of the content. |
| Assessing performance. | Students’ assimilation of the learning objectives is assessed using a practical exercise format that is similar to the one employed in the practice part of the lesson. Students receive feedback on their performance in this assessment. | The learner is called upon to demonstrate his or her mastery of the objectives. The instructor provides feedback to reinforce understanding of these objectives. |
| Provide job aids or references to ensure that learners retain and transfer what they have learned. | Students are taught a mnemonic device for recalling heart attack symptoms common to both men and may and a mnemonic device for recalling symptoms that are unique to women. The symptoms that are unique to women are presented in a laminated card that contains a pictorial representation and one-word description of each of symptom. | Mnemonic devices, learning guides, and other reference aids are introduced to support transfer and retention of the learning objectives beyond this lesson. |

When arranging ELOs according to Gagne’s sequence, it is important to recall Bloom’s Taxonomy, which we covered in Lesson 2 of this module. Specifically, objectives should be sequenced to move from the simple to the complex, with the instructional designer ensuring that each ELO supports mastery of the following ELO in parallel with Bloom’s cognitive processing model. In other words, performance of the objectives should move from lower levels cognitive functions (e.g., remembering, understanding) to progressively higher levels of cognitive functioning (e.g., applying, analyzing, evaluating and creating).

Let’s examine the ELOs from the example above.

* ELO 1: The students will list common heart attacks symptoms in men and women
* ELO 2: The students will list symptoms of heart attack that are unique to women.
* ELO 3: The students will recognize the unique symptoms of heart attacks in women.
* ELO 4: The student will construct a Venn diagram that differentiates the unique symptoms of heart attacks for males and females, respectively, as well as shared symptoms.
* ELO 5: The students will compare and contrast heart attack symptoms in men and women.

The TLO of this lesson is to have the students discriminate between heart attack symptoms in men and women, respectively. This goal is at the ***analysis*** level of Bloom’s Taxonomy, and the ELOs should be coordinated to build learners’ understanding of the content up to this level of cognitive processing. In our example, specifically, the ELOs move from the ***remembering*** level of Blooms (ELO 1 and ELO2) to the ***understanding*** level (ELO 3) to the ***application*** level (ELO 4) to the ***analysis*** level (ELO 5). Each ELO supports the subsequent ELO and all of the ELOs taken together support student attainment of the TLO. The sequencing of the ELOs defines how the content will be ordered and distributed throughout Gagne’s ”Nine Events.”

Section 5: How Do I Select Appropriate Instructional Methods for My Learning Asset?

ELOs for this section

1. Identify potential instructional methods.
2. Describe key considerations in defining instructional methods.

Regardless of whether your learning asset is a traditional training program or a discrete learning object – or a combination of both – you will need to define instructional methods that support mastery of the learning objectives contained in your instructional sequence. An *instructional method* is a specific instructional activity that is employed to facilitate learners’ assimilation of one or more objectives in a learning experience.

As we saw in the sample lesson in the previous section, a single lesson may be composed of multiple instructional methods, including some direct lecture, video cases, class discussion, and practical exercises. Thus, a learning asset with multiple lessons and units of instruction may incorporate a very wide range of methods in order to develop learners’ mastery of the target subject. It is the instructional designer’s job to select the most instructional methods that best align with the learning objectives and assessment strategy for a given learning experience.

An instructional method can be evaluated by how efficiently and effectively it can be expected to support learners in achieving the defined TLO and ELOs in a lesson or other type of defined learning experience. An instructional designer should be familiar with the common types of learning methods, when they are most effectively used, and their advantages and considerations of use in to determine which methods should be employed. This information is summarized in the following matrix.

**Instructional Methods Matrix**

| **Instructional Method** | **Appropriate Use** | **Advantages** | **Considerations** |
| --- | --- | --- | --- |
| Lecture | A means of delivering direct instruction. | * Provides a way to communicate large amounts of information to many listeners. * Maximizes instructor control. * Non-threatening to students. | * Minimal feedback from the student. * May assume unrealistic levels of student understanding and comprehension. * Can leave learners passive and disengaged from the learning process, thus compromising their retention of the content. |
| Readings | A means of delivering instructional content as text. | * Allows for self-paced instruction. * Capable of delivering large amounts of content. * Presents a resource that students may come back to as a reference. | * Readings may not adequately support the cognitive processing and retention of content without some complimentary means of instruction. * May entail considerable planning and development. |
| Case Studies | A forum for learners to analyze and apply learning in real life situations. | * Effective in disseminating and integrating knowledge. * May come from a variety of sources including current events/ * May highlight fundamental dilemmas or critical issues. * Provides format for understanding ambiguous or controversial issues. * Engages student in active learning. | * If cases are not carefully designed to align with learners expected cognitive levels according to Bloom’s Taxonomy, they will not benefit from the instruction. |
| Discussion | A forum to elaborate, clarify, validate, review learning | * Engages students in active learning. * Can be structured to support higher levels of Bloom’s Taxonomy. * Sharing of student opinions, insights, etc. can help “level the playing field” in the learning environment. * Provides a good means of eliciting multiple representations of concepts. | * Requires careful planning and preparation. * Requires that students be prepared to participate. * Students must be monitored to stay on topic. * The expectation to participate may intimidate some students. |
| Collaborative Learning | Provides a structure for learners to work together for a common goal. | * Can be structured to support more efficient learning (e.g., jigsaw). * Encourages a wide range of specific methods, such as developing learning communities, encouraging electronic exchanges, promoting ongoing discussions. * Encourages instructor & learner involvement. * Gives learners control and responsibility over much of their own learning. | * Requires careful planning and preparation. * Students must first be instructed in how to participate in a cooperative learning environment. * Conflicts may arise within the group. |
| Demonstrations/Modeling | Provides a format in which practical examples of abstract or ambiguous material can be observed, particularly in procedural learning. | * Engages the learner with a concrete conceptual base for forming mental models. * Clarifies the excepted outcomes of instruction. * Promotes faster learning of skill * Focuses on specific rather than general content. * Can be seamlessly incorporated into a lecture format. | * Should be planned and rehearsed by teacher. * The instructional environment must be appropriate for allowing student observation of the demonstration. One must carefully evaluate whether lighting, the line of student sight, etc. are adequate for this method. |
| Drawing/illustrations | Provides a visual representation and organization of instructional material. | * Assists students in organizing information for long-term retrieval. * Can be use to attract attention, aid retention, enhance understanding and create context. * Is amenable to various media formats. | * Requires pre-planning and the procurement or development of the materials. |
| Role playing/dramatization | Provides a forum for the learner to mimic, demonstrate or illustrate specific concepts,  problems or situations. | * Reflective. * May prompt learners to reposition existing perspective. * Requires learners to act spontaneously. * Helps learners think hypothetically. | * Requires considerable planning. * Learners may stray off topic. |
| Games/simulations | Provides a forum for learners to compete and/or collaborate in a simulated learning environment in order to achieve clear learning goals. | * Fun and highly motivational. * Offers opportunities for direct practice in a risk-free learning environment. * Simple games can reinforce basic learner recall and understanding of facts and concepts in a fun, pain-free way. * More complex games and simulations can support progressive mastery of learning objectives up to very high levels of complexity. * Capitalizes on the competitive and/or collaborative instincts of some learners. | * Games intended to teach complex thinking can require considerable design and development efforts. * Typically require complementary instruction in order to facilitate learning transfer beyond the game or simulation. |

It is worth noting that any of the methods identified in the matrix above may be employed in either online or instructor-led training environments, depending on the medium that is selected to deliver the instructional method. For example, a board game or paper-based simulation may be developed for classroom implementation, while a digital game or simulation may be developed for an online learning environment. Likewise, lectures, discussions, readings, case studies, and dramatizations and role plays and other traditional classroom activities can be incorporated in an online training environment using video, audio podcasts, discussion boards, online documents, web conferencing, and other digital media. Determining the specific media that will comprise the instructional materials in the learning asset to deliver the selected instructional methods will be the subject of the following module: the *development phase* of the ADDIE model.

Given so many instructional methods, how do you choose the ones that best suit the learners’ and the organization’s needs? The following list of questions should be considered in selecting the most appropriate instructional methods for a learning asset.

* *Which instructional method(s) best align with my assessment strategy and learning objectives?* The learning objectives and assessment strategy for a learning asset are the biggest determinants of the instructional methods that need to be employed. In general, whatever instructional methods are selected should align closely with the assessment for the lesson, based on the objectives. For example, if an instructional designer has decided that the objectives for a learning asset will be best assessed in a practical exercise at the end of the lesson, he or she should deliberately select instructional methods that model for learners how the objectives are practiced and that give them practice in the objectives that directly prepares them for the assessment. In this example, the methods will likely include demonstrations and case studies that model the objectives, as well as role plays and/or simulations that prepare learners for the practical exercise in which they will be assessed. In addition, he or she may need to include lectures or another means of direct instruction in order to prepare for the subsequent activities. In general, the instructional designer must be confident that all the instructional methods he or she has selected fully prepare learners to perform on the assessment. If the they do not, they must be supplemented or else abandoned.
* *Do I have sufficient time, resources, and budget to implement the instructional method(s)?* Although we will identify specific instructional materials to be developed in the development phase of the ADDIE model, now is a good time to consider whether there are sufficient time and resources to successfully implement the instructional method or methods before beginning to develop materials that support those methods. For example, if an instructional designer decides that course readings will be the primary method for delivering content in a facilitated online learning environment, he or she should be sure that he or she has the time and resources needed to create a source text for the course and/or select and reproduce text-based sources that fully cover the objectives and prepare learners for the assessment. If sufficient time and resources are not available to implement this method, he or she should find alternative methods that support performance on the assessment. If no other methods are appropriate, he or she should revise the assessment strategy to align with the instructional methods available.
* *Do my methods align with Gagne’s “Nine Events of Instruction”?* When designing a lesson or other learning experience, you will want to select instructional methods that address as many of Gagne’s “Nine Events of Instruction” as possible. A single method may be used to address several events in a lesson, such as a lecture that shares objectives and presents content, in addition to a game to provide practice, offer feedback, and assess performance. In general, the “Nine Events” offer a useful touchstone for evaluating whether the methods selected are adequate to support all the requisite conditions for learning.
* *Do my methods reflect what I know about my target audience?* If you conducted a learner analysis, you will have a grounded understanding of the learners’ experiential background, limitations, skill/knowledge sets, etc. In some cases, this information can help inform the instructional methods you select. For example, an instructional designer may discover in the course of his or her research that the target audience for the proposed asset is most comfortable and familiar with instructor-led training environments that are heavy on lectures and readings. This information should not preclude incorporating collaborative or highly interactive learning experiences in the asset, but it does may indicate to the designer that he or she does not want to rely *primarily* on collaborative, interactive learning methods and that, at the very least, he or she should incorporate some lectures and readings in order to establish the audience’s comfort level.
* *Do I sufficiently vary instructional methods to keep the audience interested?* An important responsibility of the instructor/trainer is to keep the learners engaged and motivated. It is important to remember that learners can tire, get bored, and cognitively disengage without sufficient variety and challenge in instruction. For example, a lecture may be the most efficient and effective means of delivering content in some cases, but it is almost never sustainable to design a learning asset based solely on lecture because it provides no real opportunities for learners to engage and practice. Therefore, instructional designers must always try to vary instructional methods in a learning experience enough to keep things interesting, but not so much as to interrupt the flow of the lesson.

Section 6: What’s Next?

Once an instructional designer has determined a sequential outline for the proposed learning asset, identified a sequence of instruction for the asset’s its constituent units and lessons in line with Gagne’s “Nine Events of Instruction,” and selected appropriate instructional methods that affirmatively meet all the criteria according to the questions listed above, he or she has devised an instructional strategy that will instructional strategy be recorded in the “Course Outline” section of the Plan of Instruction (POI) for the learning asset. After this step is completed, he or she is prepared to begin developing instructional materials that will implement that strategy in the next phase of ADDIE.

In the case study for this lesson, we will see how a Functional Integrated Process Team (FIPT) develops an instructional strategy for a POI through collaboration between the instructional systems design (ISD) lead and the performance learning director (PLD). This process will include the development of a high-level outline of instruction as well as the development of an instructional sequence and selection of corresponding instructional methods for an individual lesson plan.