PRE TEST LISTENING

Script A:

Professor (M): Hi Nicky, thanks for coming in.

Student (W): Hi, Professor Roth. How are you?

Professor: Good, thanks. So, okay, the reason I'm meeting with students today is so we can discuss your final papers before you turn them in. [pause] How's yours going? Are you almost done?

Student: The case study was great, and my paper's just about done.

Professor: Wow! I think you're the first student I've met with who's almost done. [pause] Most students are saying they're going to have to rush this week to meet the due date. Great. [pause] So tell me about your case study. You were examining art therapy. [pause] Is that right?

Student: Right. Well, I was paired with a man named Daniel [pause] who's been recovering from a long hospitalization. And he's been receiving treatment from an art therapist for several months. So I interviewed him, and watched some of his therapy sessions, and discussed with him how he felt about it [pause] whether he thought the art therapy was effective in helping him get better.

Professor: Terrific. So, what's in your paper?

Student: Well, I've written a fifty-three page review of the case study [pause] that's about the right length, isn't it?

Professor: Yeah, that's in range. I mean you really only needed fifty pages, so you're OK.

Student: And it includes [pause] a section on how art therapy began, a general discussion of what art therapy's about now [pause] and then my interviews with Daniel, how he's adapted to art therapy.

Professor: Great, sounds like you're in good shape.

Student: [not confident] Pretty good.

Professor: [understanding the student's tone] Oh? Is there anything you're having trouble with, [pause] anything we can talk about while you're here?

Student: Well, it sounds funny, but I'm having trouble writing my one-page summary of the whole thing. I think I'm losing focus on what you want.

Professor: Just a one-page summary of your case study, and what you feel you learned from it. Tell me, what did you learn from working with Daniel and doing all this work?

Student: I've learned, [pause] well, obviously about art therapy, [pause] all the stuff I had to read to understand that, [pause]but also, I've learned about, [pause]like, [pause]to trust the process [pause]um, how the art therapist allowed Daniel to set the pace, the uh, speed of the therapy. I thought that was interesting.

Professor: And what's wrong with writing that? It sounds like you have a clear summary of what you've learned [pause] at least in your head.

Student: I guess I hadn't verbalized it yet. [pause] I'm still thinking about all the technical details.

Professor: Sounds like you've lost the forest for the trees.

Student: [confused] You think I'm focusing on, um, insignificant facts? But those facts are important. Sorry, I don't quite see what that has to do with… [trailing off]

Professor: Right, [pause] you're umm, you're too focused on the little details of the project, rather than looking at the overall concept. What I mean is you don't want to make this summary too in-depth, [pause] you definitely don't want to write another paper. Just write down what you told me today: what you did, and what you learned from it. It's only one page.

Student: OK, yeah, thanks. I understand. I appreciate that.

Professor: I tell you, it sounds like you had a great project, and I'm impressed that you've already finished your paper.

Student: Thanks!

Listen again to part of the conversation. Then answer the question.

Student: I guess I hadn't verbalized it yet [pause] I'm still thinking about all the technical details.

Professor: Sounds like you've lost the forest for the trees.

Student: [confused] You think I'm focusing on, um, insignificant facts? But those facts are important. Sorry, I don't quite see what that has to do with… [trailing off]

Professor: Right [pause] you're umm, you're too focused on the little details of the project, rather than looking at the overall concept.

Narrator: Why does the student say this?:

Student: [confused] You think I'm focusing on, um, insignificant facts? Sorry, I don't quite see what that has to do with… [trailing off]

Script B:

Professor (W): Okay, in the last class we discussed different management models, and I brought up the topic of competitive advantage. [pause] Today, we'll go over the RBV, which is the Resource-Based View of the firm. The RBV says that some firms can gain a huge and um, a long-lasting competitive advantage over rivals. Very interesting idea, this. But to begin with, let's look at this idea of competitive advantage. Now, what's meant by competitive advantage? [pauses briefly and recognizes student] Uh, Marcus?

Student 1 (M): Isn't it when a company does something better than its rivals? You know, has higher sales, makes a better profit, whatever, because uh, basically, it does business better than other companies?

Professor: You're saying that competitive advantage is [slowly…probing] *the ability of one company to outperform others* because, well, because it does things better? Or has certain advantages others do not?

Student 1: Right. That's what I'm saying.

Professor: That's it. Very good. And there are various ways a company can achieve competitive advantage. Like, let's see, [pause] a company can sell a product at a lower cost than a rival, the uh, the competition can. Cost advantage, we call this. Or it can deliver benefits its rivals can't deliver, [pause] like a better product or a better service. Differentiation advantage, this one's called.

And this all leads me to today's topic, the Resource-Based View, the RBV. You see, there are some enviable companies out there that can achieve a *sustained* competitive advantage. What's that? Well, it's when rivals are unable to imitate whatever it is that gives a firm its competitive advantage. A competitive advantage becomes a *sustained* competitive advantage when other firms give up trying to duplicate whatever it is that a company does. Hmm … [pause] I see some blank looks, so how can I put this? A competitive advantage becomes a *sustained* competitive advantage when other companies just stop trying to copy the, uh, the leader that has the competitive advantage.

So the question is, [pause] how do you develop a sustained competitive advantage? Traditionally, most management models state that you have to understand the marketplace, [pause] you have to avoid your competitors' strengths and, uh attack their weaknesses. The focus was always on the company's *external* environment. In contrast, the RBV of the firm basically says that firms gain competitive advantage based on their *internal* resources. The basic idea is that a company's internal resources and capabilities are more critical than the external environment. Now, what kinds of resources might give a company a competitive advantage over other firms?

Student 1: Um [pause] Technology? [pause] Technology a company's created that nobody else has.

Professor: Good. What else?

Student 2 (W): Its location, maybe? A gas station in a busy intersection. Nobody else has that location.

Professor: Excellent. What else?

Student 1: People! The expertise that a company has, [pause] that's gotta be one of its main resources.

Student 2: Like a good C-E-O.

Student 1: Not only the C-E-O, [pause] all the workers.

Professor: Excellent, [pause] you get the idea. The RBV suggests that, rather than identifying strengths and weaknesses in the competition, a firm should focus on identifying and developing, and using its own internal resources, [pause] those things that the company itself has … [pause] that *nobody else has*. Now, company resources that potentially lead to competitive advantage must meet certain criteria. Be sure to get this down in your notes. They must be valuable, [short pause] rare, [short pause] inimitable, [pause] and non-substitutable. Remember this by the letters V-R-I-N, which we pronounce "vrin."

Student 2: Can you say those again?

Professor: Sure. VRIN. Valuable, rare, inimitable, non-substitutable: VRIN. Now, let's look at these one by one. *Valuable resources* are resources that enable a firm to improve its efficiency or effectiveness. *Rare resources* are resources just that; rare, uncommon. *Inimitable* means the resources cannot be imitated. They are, in a word, unique. *Non-substitutable* … this means that you cannot substitute one resource with another resource and have the same value. So … according to this theory, the only resources that can help a firm sustain its competitive advantage are VRIN resources.

Student 2: So resources have to have ALL those characteristics [pause] not just one of them?

Professor: Right, for a resource to lead to competitive advantage, it has to meet all four VRIN criteria. And those resources that *do* meet these criteria, [pause] these are potential sources of sustained competitive advantage.

Student 1: I would think that VRIN resources aren't easy to find.

Professor: They're not! Remember, a resource that's available to other firms cannot give a company a sustained competitive advantage. Hey, think of *how hard* it is to find a resource that's inimitable!

Student 1: Yeah, if a company can create a resource, then chances are, someone else can at least imitate it.

Student 2: [as if suddenly understanding] Oh, yeah, right. Like that chicken restaurant that's always so busy right across College Street from the campus. They claim to have a secret recipe for cooking their chicken. So I suppose they *probably do* have a secret recipe.

Professor: That's what I'm talking about. Right! I couldn't have come up with a better example myself. That chicken place is a perfect example of a company with a sustained competitive advantage. I'm sure every chicken restaurant in the area has tried to figure out what's in their recipe [pause] but so far, no one has been able to. Perhaps they've already given up trying! So there it is [pause] a sustained competitive advantage.

Listen again to part of the conversation. Then answer the question.

Student 1: Yeah, if a company can create a resource, then chances are, someone else can at least imitate it.

Student 2: [as if suddenly understanding] Oh, yeah, right. Like that chicken restaurant that's always so busy right across College Street from the campus. They claim to have a secret recipe for cooking their chicken.

Narrator: Why does the woman say this? 

Student 2: Like that chicken restaurant that's always so busy right across College Street from the campus.

Script C:

Professor (M): I mentioned a week ago that we were going to talk about the history of the dictionary, but I wanted to save it until after we'd gotten past the Renaissance, because [pause] uh [pause] the development of the dictionary is closely related to changes that occurred to the English language during the fourteen to sixteen hundreds. What are some things we now know about how English developed during this time? [pause] Nancy?

Student 1 (W): Well, a lot of new words [pause] um [pause] they came from all the exploration and trade that was going on. The European discovery of the New World, merchant travel to India, to Africa…

Professor: That's right. The English language received hundreds of new words from exploration and trade. Like what? [pause to think] Well, words such as *hurricane* and *canoe* both came from the native languages of people the explorers met.. And besides exploration and trade, what's the other main source of new words during this period? [slightly longer pause] Anyone? [shorter pause; chuckling] Well, don't everyone talk at once! [pause] Ah, great, thank you, Chris?

Student 2 (M): Science! People were conducting experiments and were coining new words to describe the things [pause] you know, things they were discovering in astronomy, physics and other sciences.

Professor: You said they were *coining* new words. But they weren't just making these words up, were they?

Student 2: [unsure] Sorry, I don't follow.

Professor: From the fourteen to the sixteen hundreds, these scientists created new words based on ancient Greek and Latin words. And pretty soon, a whole new discipline, a whole new field of academic study began [pause] *lexicography*. Hmm…sounds Greek, doesn't it? Anyway, what is lexicography?

Student 2: *Lexicon* refers to dictionary. And like you said, uh, suggested, [pause] it must've come from Greek. So it must be the study of words that go into a dictionary.

Professor: Nicely done!

Student 1: So then lexicographers are just the people who write dictionaries [pause] right?

Professor: Yes, lexicography is pretty much synonymous with writing and editing dictionaries. And this whole [pause] uh [pause] discipline [pause] it arose in response to all of the new words. What's interesting is how lexicography evolved from just *listing*

words, to *teaching* people *about* the language. Let me ask you: *how* do you use a dictionary today? You look up the meanings of words, right? You look up the spellings. The pronunciation. And Chris, our resident expert on Greek, [pause] what else can you do with a dictionary?

Student 2: Well, you can look up etymology [pause] you know, look up the *origins* of words.

Professor: Good. [pause] You can learn how words arrived at their current form. How meaning changes as words evolve. The point is, we rely on the dictionary to *explain* the English language, which is really a living language, [pause] it's evolved over time, it's still evolving. And this sense of the dictionary, as an *explainer* of the language *itself,* this, uh, [pause] this concept didn't really exist until Samuel Johnson's seventeen fifty-five dictionary of the English language. [pause] You'd better write that down. [pause] Samuel Johnson's seventeen fifty-five dictionary provided the general format for the modern dictionary. So that's important! Before Johnson, dictionaries were basically lists of hard or unusual words, [pause] those words we were talking about earlier, [pause] words from travel and science, and they were written for educated readers. They weren't *descriptions* of the language intended for the *general* reader.

Student 2: [suggesting that Johnson's dictionary was for the general reader] But Johnson's *was.* That's what you're getting at, right?

Professor: Yes, exactly. Johnson's target audience was the general public. And this is one way his dictionary is different from those that came before it. Johnson's original plan was, [pause] hmm, how can I put this? [pause] For a dictionary that would "fix", and I do mean "fix" as in *repair* the language. It would teach people the proper and correct usage of words. But by the time he published his dictionary, Johnson realized that because language is constantly changing, no dictionary could ever really fix it. All it can do is *record* the language at a moment in its history. So he went from wanting to *fix* the language to wanting to *record* it, [pause] and that's also a modern concept.

Student 1: But I thought you said his dictionary was designed to *explain* the language. Doesn't that contradict what you just said?

Professor: Don't get me wrong. [pause] Johnson certainly had a clear idea of what he considered proper and improper usage. But regardless of whether he considered a certain meaning of a word proper or improper, he *listed* it [pause] and that's a pretty important innovation. He *did* want people to use words correctly, but rather than imagining that he could control the language, he did things like show etymology, quote literature … [pause] He demonstrated the best in *past* usage so that it would serve as a guide for *future* usage. And this is what dictionaries do today. They consider language a living thing. The idea of explaining *regular* words, and explaining them on the basis of

their common *usage,* explaining them for the *average* person, well, these are normal ideas now, but they all originally come from Samuel Johnson.

Listen again to part of the conversation. Then answer the question.

Professor: Before Johnson, dictionaries were basically lists of hard or unusual words [pause] these words we were talking about earlier [pause] from travel and science, and they were written for educated readers. They weren't *descriptions* of the language for the *general* reader.

Student 2: [suggesting that Johnson's dictionary was for the general reader] But Johnson's *was*.

Professor: Yes, exactly. Johnson's target audience was the general public.

Narrator: Why does the student say this:

Student 2: [suggesting that Johnson's dictionary was for the general reader] But Johnson's *was*.

Script D:

Professor (M): Bats are famously good at finding their way home after long nights hunting insects. How they *do* it, though, has puzzled scientists for a long time. So now there's a new study, [pause] and it appears that what bats do is, [pause] they use the Earth's magnetic field as a navigational device. How the scientists demonstrated this is interesting not only for the results, which are pretty important, but also for the way they conducted their study.

Bats, as most of you know, are famous for their use of echolocation. They emit high-pitched squeaks when they're flying around, and the sound waves hit objects and bounce back to them. [pause] The sound's *echo,* essentially, [pause] and by measuring the time it takes for the echo to return after hitting the object, they're able to gauge the distance of those objects. And this echolocation, this is what keeps them from flying into buildings and cave walls and things like that, [pause] and of course, that's how they find prey. Their sense of echolocation is so acute, so sharp, they're able to figure out the speed and direction of a flying insect. [pause] It's *that* accurate.

So echolocation, [pause] that's great for hunting insects and avoiding buildings and trees. But what scientists have often wondered about is how bats navigate when they're way up in the air and a long way from home. [pause] How they make it back home when they're finished hunting. One of the theories that's long been proposed is

that bats somehow use the Earth's magnetic field as a compass. So a group of scientists decided to go out and test this. But to specifically test the idea that bats were using a *magnetic* sense to navigate, they did something interesting.

They, um, [pause] captured about ten bats and divided them into two groups. They exposed one group of these bats to strong, artificial magnetic fields. They took the bats and basically stuck them inside of a giant magnetic coil. The idea is that if bats really *did* have some kind of internal magnetic compasses, this sense would be confused by the magnetic coil. Makes sense, right? Well, to put another way, their exposure to heavy magnetic fields might confuse them, and make them think north was south, or south was east, or whatever. With the other bats, they didn't do anything to them. I mean the scientists *didn't* expose them to a magnetic field.

Okay, so the scientists took all these bats, and fit them with tiny radio transmitters so they could track the bats' location. They drove the bats about twenty miles north of their roosting sites, their uh, homes, [pause] and released them. And then the scientists kept track of them using the radio transmitters to see which way the bats traveled.

What they saw was proof the bats really *do* have a sort of internal magnetic compass. First of all, the bats that had received no magnetic exposure immediately went south, and easily found their way home. The bats that had been exposed to the magnetic coil, however, flew off in entirely wrong directions for a couple of hours … [pause] east, west, or whatever. Then, after they'd flown anywhere from five to fifteen miles, depending on the bat, and the effects of the coil had worn off, the bats suddenly recognized that they were flying in the wrong direction, and they corrected themselves. And all of them eventually made it home.

Now, the scientists aren't saying the bats relied *entirely* on their magnetic sense to get home. [pause] They certainly could have used other navigational cues, like recognizing mountains and whatnot. But the study is significant because it's the first *field demonstration* of bats being sensitive to the Earth's magnetic field. That, in itself, was groundbreaking. And although this study was conducted with a small number of bats, and with only one species of bat, the scientists say it's pretty likely that all bats have this magnetic sense.

What's also significant about the study is the technology that made it possible. Those little radio transmitters I told you about? Well, these transmitters are now so small [pause] you can attach them to the backs of bats, or even to insects. There are all these questions researchers have been wanting to know for a long time, like, how do birds and insects transmit diseases, or where do migratory butterflies rest at the end of the day? Now, scientists have the means to answer some of these questions. So the study's significant for that reason as well.

Listen again to part of the conversation. Then answer the question.

Narrator: What can be inferred about the professor when he says this  :

Professor: Their sense of echolocation is so acute, so sharp; they're able to figure out the speed and direction of a flying insect. [pause] It's *that* accurate.

Listen again to part of the conversation. Then answer the question.

Narrator: Why does the professor say this?  :

Professor: The idea is that if bats really did have some kind of internal magnetic compasses, this sense would be confused by the magnetic coil. Makes sense, right? Well, to put another way, their exposure to heavy magnetic fields might confuse them, and make them think north was south, or south was east, or whatever.

Listening

Lesson 9

About 9

Student (M): Hi, professor. Do you, uh, have a minute?

Professor (W): Oh, hi, Tim. Yeah, come on in. Give me just a sec… [short pause] OK, what do you need?

Student: Well, you handed our papers back on Friday… [pause]

Professor: Uh-huh [= yes, go on]

Student: And, well, I wasn't—I didn't get what I thought I'd get. Do you think you could explain the grade a little bit more? I mean, I know you wrote—what was it?—oh yeah, you wrote "Check your sources" and underlined it. Could you maybe clarify that for me?

Professor: Yeah, sure. OK, let's start by looking over the requirements of the assignment, OK? [pause] All right, you were supposed to explore the controversy… [pause] the debate surrounding one of the books that we read this semester and discuss it, right? You chose, uh—you chose *Madness and Civilization* by Foucault, right?

Student: Yeah.

Professor: OK, well let's look at your paper. I was really glad that you chose this particular book, actually. I mean, a lot of the students were a little intimidated by it, right? It was a pretty serious undertaking, don't you think?

Student: Yeah, it's certainly one of the longer works that we've read over the semester.

Professor: Sure, and you covered the book well in the paper. But you were supposed to *talk about the debate surrounding the work*, [with emphasis] right? And, I mean, you really didn't address that, uh…you didn't really talk about that debate very much.

Student: OK, what do you mean?

Professor: Well, the best example that I can think of was the article you cited by Derrida. So your paper talked about how the famous philosopher Derrida attacked Foucault's work. That was a good choice, but I got the impression that you didn't read the article—I mean um, I mean Derrida's article itself.

Student: Uh-huh. [= go on]

Professor: Look, Derrida's article is famous because he criticizes this very large work by Foucault, right? And then, in the course of 20 pages or so, totally turns Foucault's work inside-out and reveals it to be a poorly researched, poorly thought-out book, right?

Student: [hesitatingly] Yeah, I guess.

Professor: [excitedly] I mean, this was kind of one of the defining moments of Derrida's career! This is deconstruction in all of its glory. And the article…Derrida's article is really, really important because it got Derrida the—the recognition that he had been lacking for quite some time.

Student: [unsure] Yeah. [short pause]

Professor: Look, Tim, I'm really glad that you were ambitious enough to pick up a piece like this and work on it, but this issue with Derrida pretty much sums up my entire problem with, uh, with your paper. You clearly understood the actual book that your paper centered on, but you—you really didn't include any of the outside pieces of debate. I mean, quite frankly, I'm not even sure that you actually read the article by Derrida. And if you did, you clearly didn't understand it.

Student: [sheepishly] Yeah, I guess I did kind of read over my sources…uh, a bit too quickly. I mean, I tried reading Derrida, but it was the night before the paper was due and I really underestimated the amount of time it was going to take. And I mean, hey, reading Derrida is *really hard*.

Professor: [laughing] Hahaha! Well, you're definitely not the only person that feels that way, Tim. A lot of professors and some of my colleagues in the department even have trouble understanding him. He *is* difficult to read. And he definitely takes time to properly understand. Even for that short, 20-page article, you should have at least given yourself a couple of hours.

Student: Yeah, I just didn't have that kind of time.

Professor: Well, it does get easier with time. Derrida and some of the other philosophers of the time really take some time to get into. Once you get a feel for their style, though, their work really—uh, it really starts opening up. It gets easier.

Student: [sarcastically] Yeah, right!

Professor: [laughs at first] No, really. It does become easier, I promise. In fact, I spent my second year of grad school just learning to read the guy. Don't be too hard on yourself. You can understand him.

Student: I just wish I had known this *before it was due*, [regretfully] you know?

Professor: Look, I appreciate you coming in to talk to me. Believe it or not, a lot of students will just take whatever grade you give them. You came to talk to me and I can tell you're interested in this stuff and want to do well.

Student: Uh-huh? [= yes, hopefully]

Professor: So [short pause] why don't I let you rewrite the paper. Just focus on that Derrida article, since it's a lot of work, and turn it—oh, say—a week from today?

Student: That sounds great! Thank you so much for the extension! I really, really appreciate it.

Professor: Hey, it's no problem. Let me know if you have any questions, OK?

Student: Will do! Thanks again!

Lesson 9.1

Activity 1

Student (W): Good morning, Dr. Hammer, I'm Susan Jacobs.

Professor (M): Nice to meet you. What can I do for you? [unsure why the woman has shown up] You're…you're not in any of my courses this semester, are you?

Student: No, no, I'm not. But I'd like to be, well, not this semester, but next semester.

Professor: Are you a freshman?

Student: Yes, I am.

Professor: Then I imagine you'll be signing up for my basic course, Psychology 101.

Student: No, uhh… [thinking about her next words] what I mean is, uhh... [thinking] I actually want to take Psychology 102.

Professor: Well, that requires 101 first, which you haven't taken, right?

Student: No, I haven't—not formally at least. But I took an introduction to psychology course my last semester in high school, and I was hoping...

Professor: [interrupting] Well, I'm sure you understand that high school courses aren't as difficult as college courses. They don't cover as much material, and what they do cover isn't nearly as in-depth as a college course is.

Student: I know that, but, uhh… [thinking about her next words] I looked at the 101 textbook, and, well, it's the same book we used for the high school course. And I actually sat in on the first two lectures of your class this semester just to make sure. I really think, uhh… [thinking about her next words] well, I'm afraid 101 would be repetitive for me.

Professor: The same textbook?

Student: Yes. [quickly adds] I'm sure we didn't cover the material as well as you do, but still … [pause] Uhh, I know I'm asking you to waive a prerequisite. Here, I, uh, brought you my final research paper from the class. I thought it might be the best way for you to see what I did in the class.

Professor: [taking paper] Hmmm… [thinking about it] well, the topic would certainly be acceptable for Psych 101, comparing Freud and Jung. [sound of turning pages.] And your bibliography looks good. I can't argue with the quality of your references. Uh, tell me, what's your major?

Student: I actually haven't declared a major yet, but I am thinking about psychology. The high school course was my first introduction to the subject and I really enjoyed it. That's one reason why I want to take your class next semester, to see if I like it as much as I think I will. But of course, uh, the registrar won't let me sign up for it without your permission, since I didn't take 101 this semester.

Professor: Well, you've offered some good reasons for waiving Psych 101. So, uh, and this is a first for me, but OK, I'll be happy to have you in Psych 102 next semester.

Lesson 9.1

Activity 2

Student (W): Hi. I was just trying to do some laundry in Wayland House and one of my washers took my money…and it uh, it didn't work.

Facilities Director (M): I'm really sorry about that. Do you remember which one it was?

Student: Yeah, it was number 2. The other ones seem to work just fine, but when I tried using number 2, the screen kept saying that I needed to deposit more money.

Facilities Director: [sympathetically] Okay, and you tried pushing the coin return button?

Student: Sure, but nothing happened.

Facilities Director: Ugh, [frustrated] this is the third complaint we've had this morning about that machine. I'm gonna hafta go out and put a sign on it so you guys can stop wasting your money.

Student: Is there a complaint form or something that I need to fill out?

Facilities Director: Yep, it's a real short form we submit to the company we contract the machines from. Just make sure to put your name and dorm number on it. [pause] To tell you the truth, we've had more problems than ever since we got with this new company. Plus they take forever to send people out to service the machines.

Student: [while writing] Why doesn't the university just switch to whoever we were using before?

Facilities Director: Something about budget cuts. But they're gonna have to do something.

Student: Here you go. [pause] Who makes the decision on what company is used? Maybe if enough students voice their concerns to that person, they can help us make a change. I mean, almost everybody I know in this building has lost money in those washers.

Facilities Director: You'd have to take it to the Director of Residential Life, since he signed off on the new company last year. His name is Chad Bova, B-O-V-A . I'm sure you can find his email address on the university website.

Student: I'll do that, and tell all of my friends, too. It's really frustrating losing money week after week.

Facilities Director: Well, lemme tell you something else. I know it's just a couple of dollars, but anytime the machine takes your money like this, you should come down and fill out the complaint form. That way we have documentation of how often this is happening. Plus, then we can also refund you whatever money you lost.

Student: Really? That would be great. Normally, I would just let it slide, but this time I didn't have enough money left to throw my clothes into the dryer.

Facilities Director: Well, let's get those clothes dried then. How much money did you say you put in that thing?

Student: Um [not sure], well, I started off with six dollars. Lemme just think for a minute. [pause] Well, since I don't have enough for the dryer, I guess it was just a dollar.

Facilities Director: Here you go. And remember, the more people that talk to Mr. Bova about the problem, the quicker it'll be solved. So tell everybody you know.

Student: Of course! I'm sure if we let him know what a big problem it is, things will improve fast. Thanks a lot!

Lesson 9.1

Activity 3

Student (M): Uh, hello, I, uh, I need some information about reserving the auditorium.

Administrator (W): You've found the right person. What can I tell you?

Student: Well, is it available on May 8th?

Administrator: Morning, afternoon, or evening?

Student: All three. Well, what I mean is, we'd like to use it all day, from, like nine in the morning 'til, well, midnight, I guess.

Administrator: Oh… [=I understand] What kind of event are we talking about?

Student: Well, it's a combination of films and panel discussions. Uhh… [thinking about his next words] it's a project a friend and I are putting together for our history class, for Dr. Whitaker.

Administrator: History?

Student: Yeah, uh, you see, we're looking at how films depict history. So, uh, we've chosen four films, we'll uh show the films, and after each film we'll have a panel discussion. Uh, a history professor, a film professor, plus, uh, my friend and me. We'll talk about the films, you know, how historically accurate they are, um, how well the story works, that kind of thing.

Administrator: Sounds like an interesting project. Let's see here… [pause] the eighth of May, right?

Student: Uh-huh… [=yes].

Administrator: You're in luck. It's available for the entire day.

Student: Great! Okay, my name is Steve Browne, uh, Browne with an "e" at the end.

Administrator: Okay, Steve. Well, what you need to do is fill out this form. And who's your sponsor?

Student: Sponsor?

Administrator: Yeah, you need either a university-approved organization or a faculty member to sponsor your request. Can't do it alone. I'm sure Dr. Whitaker will be happy to sign it.

Student: Well, we didn't really want to involve him. I mean, he knows our general topic, but well, we haven't told him the specifics. We think it'll make a better impression if he comes to it fresh like everyone else. I mean, everyone has their favorite movies, and if we don't pick his, uhh… [thinking about his next words] we don't want him to be biased. And uh…well, frankly, we want to choose our own films.

Administrator: I see. Well, how about an organization? The Campus Film Society, perhaps?

Student: We're both members, but this really has nothing to do with that. I mean, it's *our* project, just the two of us.

Administrator: Dr. Whitaker is quite familiar with the procedures here – it wouldn't hurt to ask.

Student: Hmm… [=not sure].

Administrator: You need someone, a faculty member or a campus organization.

Student: Okay, I'll talk to my partner. [Pause] Could it be one of the panel members, if they agree?

Administrator: As long as they're faculty here at the university, sure.

Lesson 9.1

Activity 4

Student (M): Professor Harris? Do you have a minute? I wanted to talk to you about something.

Professor (W): Sure, let's chat. I'm glad you came to see me, Max.

Student: Well, the thing is—uh [thinking] after the last two tests, I'm worried about how I'm doing in your class.

Professor: I see. I was concerned about that myself. To be frank, I was a little surprised that you did so poorly. You started off so strong at the beginning of the semester.

Student: I know—it's just that things always get crazy around midterms. But I know that's no excuse—what I wanted to ask you is if there's any extra credit I could complete to bring up my grade.

Professor: If you've talked to anybody that's taken my class in the past, you'll know that I rarely give extra credit projects… but luckily for you, the drama department is extremely shorthanded this semester. Would you be able to help with building the set for their next play?

Student: Well, sure. In fact, I did some set construction in high school.

Professor: Marvelous! You'll need to sign up with Professor Foreman in the Drama Department. He'll give you all the details about when to show up.

Student: Great—so, um [unsure], I guess that's straightened out.

Professor: [laughing a little] Actually, Max, I'm afraid I'm gonna have to ask you to do a little more than just construction, if you really want this to help your grade.

Student: Oh [disappointed], Um [not sure], like what?

Professor: What I want you to do is write an essay based on your experience building the set. And make sure to tie it back to what you've learned this semester. You can relate it to anything we've talked about in class, or any of the outside readings.

Student: Um, OK. So should I--do you want me to give a brief history or something, or should I cover the more technical aspects of it?

Professor: Honestly, it's up to you. The most important part is that you convince me you've really learned something, and also thought about the material we've been covering in class.

Student: Hmm [= thinking about it]. That actually sounds kinda cool. I mean, a good way for me to connect something practical to what we've been studying. And I am really interested in sets, actually.

Professor: Good. So just make sure to have the essay to me one week after the play wraps up.

Student: That's fine. Um, [thinking about] how long should the essay be?

Professor: Well, long enough to show me that you've learned something. I think at least three pages. But let's say not more than five, OK?

Student: Thanks so much, Professor Harris. I really appreciate this opportunity. I won't disappoint you.

Lesson 9.2

Activity 1

Professor (M): Good afternoon. So up to this point, we've talked a lot about the history of technological advances that have sort of uh [= not sure/thinking about]—well, shaped the mass media as we know it today. But what we haven't talked about are the social consequences of the media boom. Today, I want to focus on one period specifically: the years following the First World War**,** or the Jazz Age. I chose this period for a particular reason: it was essentially the time in which modern mass media was born.

Okay, well, first, I guess I'd better give a definition of mass media just to make sure we're all on the same page. So the term *mass media* refers to the communications designed to reach the majority of the population, such as, uh... books, newspapers, radio, television, film, etc. Does everybody understand what I mean when I talk about the mass media? [pause] Splendid, now we can get started.

And well, to start, let's first backtrack a little bit. As we know from the previous lecture, media technology really just, like, *boomed* during the war. We're talking about advancements in printing technology, the telephone, even the first films. Well, all of that technology was still around after the war, of course. But with a much different function. During the Jazz Age, we have a movie theater in almost every town, and movie attentive—um [= not sure/thinking about], movie attendance, rather—doubled across the nation. While I was writing this lecture, I read a statistic that said that during this period the average household went to the movies three times per week. Even without knowing what movie attendance is like now, it's hard *not* to appreciate just how often people were heading out to the theaters.

Now, moving on, what does that statistic tell us about society and the media during this period? Well, first off, that media was *a lot more accessible* to *a lot more people*. Take books, for an example. Before, only the wealthy could afford to buy books. After the war, however, there was just this *profusion* of books and newspapers. You know all those tabloid newspapers you see in the supermarkets today? All of that got started during the 1920s. The coverage of the press shifted to more sensational topics like scandals or the not-so-secret lives of celebrities.

Which brings me back to a *second* point on what you can figure out from the statistic I mentioned earlier: Suddenly, there was this new kind of public figure known as the celebrity. With people going to the movies that often, it was only a matter of time before movie stars were created for the, uh,[= not sure/thinking about] I guess you'd say, the viewing pleasure of society. In fact, in that way the movie industry and the press sort of collided and fed into each other. Is everybody still with me? [pause] Let me explain further. Because the more such-and-such an actress appeared in movies, the more the public was interested in her, meaning that more magazines were sold. And just as a side note, let me add that with the rise of celebrity, there was also a rising concern of portraying morality and decency in films. In 1922, the Hays Office was created to monitor the output from Hollywood and censor—you know, just cut out—content they thought was immoral or inappropriate somehow. So to summarize, it was the age of the movie star and government-enforced morality.

And there's just one more thing I want to touch upon before leaving this topic. I'm sure I mentioned before that this period is called the Jazz Age. This refers to the astonishing growth and popularity of jazz in the years after World War I. Remember that in this period, jazz musicians were predominantly African American. What I want you to consider is this: before the war, black artists had no place in the public spotlight. In fact, African Americans hardly had a place in society at all. But with advanced radio broadcasting and media-recording technologies, jazz soon found a national audience. With a national debate intensifying over civil rights, jazz became a way through which blacks could voice their grievances.

Lesson 9.2

Activity 2

Professor (M): Hello, everybody. If you will all take your seats, I think we can get started. [pause] Okay, great. I guess we're ready to begin.

This week we've been talking about interpersonal relations. I think last time we, uh . . . got started talking about attraction. Today I'm going to share some of the more popular theories about interpersonal attraction and the formation of pairs—you know, two people who have formed a relationship. And before we even get into those theories, I want to clarify that when I talk about the formation of pairs, I'm talking about romantic and, um, even friendly pairings.

All right, I know we all like to think that attraction is this sort of, I don't know, spontaneous and, um, mysterious force that drives us, but there's been all sorts of studies on it and turns out it's not quite as unpredictable as poets would have us think. These studies have identified various [pause—to draw attention to the term that follows: determinants] determinants of attraction. The first determinant of attraction we're going to consider is "proximity."

Does everybody understand what I mean when I say "proximity"? [pause]Okay . . . So back in the 1950s, researchers did a study. They surveyed the residents in two different buildings about who they associated with the most. You'll see that they, uh, found that people are more likely to form friendships with residents in the same building rather than with someone in the neighboring building. Okay, and then later another study by a different group of researchers confirmed this and found that just being near someone constantly was a stronger determinant of attraction than other factors like race, age, or religion. And what does all this mean? The closer people are, the more likely they are to form pairings amongst themselves. Simple, right?

Okay, moving on now to a second determinant of attraction, which is called "exposure" and, uh . . . Well, let's look at the important research in this area done in the 1980s and 90s. In one study, researchers showed a group of subjects a series of photographs, and what they found is that the subjects were most attracted to the people whose photographs appeared the most in the series. This phenomenon is called the "Exposure Effect."

So just put yourself where someone can see you all day, and they'll start liking you, right? Before you start hanging around someone constantly, realize that there's a

catch—two catches, actually. Because researchers have found that you can get actually sick and tired of a person when you're overexposed, when you see someone too much. Do y'all get that? [pause]It means that when you see, um . . . oh, some famous actor in a lot of movies, and in magazines, and on talk shows, you just aren't as stimulated by his image. Second, they found that the subject's feeling about a repeated photograph is really affected by the initial response to the photograph. What that means is that if the subject disliked the person in the photograph from the start, the subject will just dislike them more and more with each viewing.

The last factor in interpersonal attraction that we'll have time to discuss today is "similarity."

There have been any number of studies on similarity as a determinant of attraction, and basically what researchers have learned is that the more similarities two people share, the more likely they are to stay together. And, I mean, it makes sense, you know? People are bound to drift apart if they don't have the same values or religious or political attitudes. This is especially true in cases where the people in the couples hold very strong beliefs.

Lesson 9.2

Activity 3

Professor (W): OK, everyone, we've been talking about team dynamics lately. And today, we're gonna stay on topic and delve into a potential problem to working with teams. Seems odd, doesn't it? I mean, we've always heard that teams are the way to go, the, uh, the best way to get anything done is by creating a team to handle it. And of course, sure, teams really can be effective…but it all depends on how you create the team and then manage it once it's created, OK?

But first, before we get into all that, I'd like everyone to think about a team that you've been on. OK? Everyone there? Good. Now on that team, was there anyone who didn't really pull their weight? You know, someone who just didn't contribute as much as they should've? Maybe *you* ended up doing *their* work? [humorously] Yeah, don't you just love teammates like that? Well, if this has happened to you, you experienced a phenomenon in team dynamics known as social loafing.

And basically all social loafing is, um… [= hesitation, as thought is interrupted] Josh, you're grinning from ear to ear. What's up?

Student (M): [chuckling at first] Oh, I'm sorry, Professor Trujillo, but, uh, yeah, I totally had that problem last semester in a marketing class. I guess I shouldn't be laughing…I mean the guy…the, uh, the guy completely killed our team's productivity. We spent all our time making up for his laziness.

Professor: [in affirmation] Yes, I thought one or two of you had probably experienced this. And you, uh, Josh, you said that he affected your team's productivity in a bad way…killed it. Well, that's what I'm talking about. So, um…first things first. Social loafing…social loafing. Simply put, social loafing is the tendency of some people not to work as hard within a group as they would by themselves. And like Josh said, it kills productivity…it almost always results in lower team performance. OK, that's just its *usual* effect, and that's bad enough, of course. But in worst-case scenarios, it actually keeps the team from reaching its goals altogether. So there it is in a nutshell. Now the good part—what you as managers can do to eliminate the problem.

OK, first, you gotta make tasks clearly identifiable. Tell team members what you want from them—give them your expectations. Not only that, but, um, [= thinking about] make sure that they know exactly what the project should look like at the end. This kind of gives them...well, it kind of gives them something to reach for. Nobody wants to work on something when they don't know what's expected of them. [speaking from experience] It makes for a *very* large headache.

Next, and this seems so obvious, make a little competition out of it. Let the team members compete against one another, but in a good way. Some people who would otherwise be social loafers will rise to the challenge. So, for example, tell your team that the first person to hit their deadline, oh, I don't know, gets to leave early on Friday. Or the company will buy her lunch. Or even something small, like he gets a candy bar! My point is that nobody likes to lose. So you'll be getting the maximum amount of productivity from each person.

Third step…it's all about assessment. What d'ya do? You assess [with emphasis] *each and every member* of the team. You evaluate their contributions—or lack of contributions—and you do it in such a way that they will be motivated to do well. Um, In fact**,** you managers should do this at the end of every group project. Potential social loafers need to know that they did or did not meet expectations, and that there are consequences for failing to hold up their part in the project, if they did fail. Plus, you can include the entire group in these...these performance evaluations. Again, you know, it doesn't hurt for the team members to have a personal investment—that is, their pride—in the project. If they didn't do well, they can expect to get negative feedback from the group. It's using peer pressure, but [with emphasis] in a *positive* way.

Lesson 9.2

Activity 4

Professor (M): You know, we've been discussing, um [= thinking about] distribution and exchange for about two weeks now. As we get ready to wrap up on this unit, I thought it would be helpful if we do something a little different today. So instead of our regular lecture, I wanted to give you all the opportunity to sound off on the topic and share your, um [thinking about] thoughts and reactions. Y'all can see that I arranged the chairs in a circle today—well, I'm hoping that will help facilitate discussion. I'll start you off by having you re-read the paragraph on the Kula Ring on page 216. [pause] Can anybody summarize that information for the class?

Student 1 (W): Sure, I'll give it a try. OK, [slowly at first, then picking up speed] basically it talks about the trade relationship between the Melanesian peoples living on the ring of islands in the South Pacific. Apparently, men from the different islands travel to neighboring islands to exchange, um... [thinking about] prized necklaces and armbands. I think that the necklaces are exchanged in, like, a clockwise direction around the islands and the arm bands are exchanged in a, uh..., [thinking about] counterclockwise direction. So anyway, the traders have to travel through pretty rough waters in order to reach the other islands and eventually the individual necklaces and armbands become, uh [= thinking about], steeped in particular histories and myths.

Professor: Right. That was an excellent summary. And let me just add that, uh [= thinking about], these items usually lose their value when they stop circulating within the ring. What that demonstrates is that the necklaces and the armbands become a form of currency that, uh [thinking about], well, it's part of the cultural fabric. So what were your initial thoughts when reading about the Kula Ring?

Student 2 (M): Right off the bat, I thought back to the beginning of the unit when we talked about, um [= thinking about], oh, balanced reciprocity.

Student 1: Hold on, what's *balanced reciprocity* again?

Student 2: It's when the exchange involves goods of equal value and occurs within a specific time frame.

Professor: Exactly. And you know, now that you brought that up, why don't we just review the three different categories of reciprocity. Reciprocity is, of course, just a kind of transaction where items or services are exchanged. *Generalized* reciprocity is an exchange that usually occurs over a long time frame, and there's no specificity about the value of the goods or the time frame in with—I mean *which*—in which repayment takes place. Can anyone think of an example of generalized reciprocity?

Student 1: Well, how about when the meat from the animals killed by Indigenous Australians is shared with the hunter's relatives? Since giving is mandatory, people are kinda ensured that they will receive at some point in the future, too, right?

Professor: Yep, you got it. Now remember, the key to that exchange is that it serves as a kind of social insurance within the community. We tend to think that gift giving is a selfless act, but as with the example with the Indigenous Australians, the giving serves the function of um, [thinking about], uh, reinforcing, um [thinking about], social bonds. [pause] OK, and we already talked about balanced reciprocity, so let's quickly talk about the last category of reciprocity. Can anybody remember what it is called?

Student 1: Negative reciprocity.

Professor: Good! Can you give a short definition of what *negative reciprocity* is?

Student 1: Well, um, [= not sure] I'm not sure I completely understand the concept. I mean, I gather from the name that it has to do with an unequal exchange, but I don't think I can really speak on it in much depth.

Professor: That's perfectly fine. Let me help you out. You are exactly on point about it being an unequal exchange. It usually involves parties that try to get something from each other for nothing—or the very least possible. What's interesting is that the parties are usually strangers or might even be enemies. So it's very different because there's almost an outright disregard for the social bond.

Lesson 10

Lesson 10.1

Activity 1

Advisor (M): Hi, can I help you?

Student (W): Umm [= not sure/thinking about], yeah, I'm looking for Chris French.

Advisor: You're in the right place. That's me.

Student: Oh [= I understand], hi. I'm Tracy—Tracy McGinnis.

Advisor: Nice to meet you, Tracy.

Student: Nice to meet you too. So…uh, the reason I'm here is I'm a freshman and, umm... [= not sure/thinking about], I wanted to talk to an advisor. [pause] I read everything they gave us at orientation, but, you know, I want to talk it over with my advisor—I mean you, that's you, right? I want to talk with you before I actually register.

Advisor: Well, Tracy, that's a good idea. You're certainly on the right track. Let me ask you this, have you thought about what classes you want this term?

Student: I have a pretty long list of classes that interest me. I think, like, maybe twenty or so.

Advisor: Well, normally, students take five courses per semester. See, the university requires all students in the College of Arts and Sciences to complete 120 credits before graduating with a Bachelor's degree. So it's important that you plan your classes carefully to graduate on time.

Student: Oh [= I understand], I see.

Advisor: We can work with your list, but first, [pauses] have you thought about your major?

Student: Mm-hmm [= yes], I think I either want to major in English literature or biochemistry. I know those are really different… [little laugh, short pause] I was really good at English in high school, but, see, my parents really think I'd be better off studying biochemistry.

Advisor: Nothing strange about that—a lot of students come into the university with widely diverging interests. Students that plan well are often able to combine those interests into a major and a minor, or even a double major. That's why it's important to plan ahead.

Student: Yeah [= I understand], that's right. I heard one of the presenters at our orientation session talking about double majors. How can I do that?

Advisor: Well, first let me explain a little more about the registration process and how you and I can best use our time together to help you reach your educational goals. Have you heard about the general educational requirements—we call sometimes call them gen eds?

Student: Sure, they mentioned them at orientation. We have to finish the gen eds before we graduate, right?

Advisor: That's correct. All students in the College of Arts and Sciences are required to complete fifty-four credits of general education requirements, and for the most part you have a lot of choices as to which courses you can take to fulfill each of the requirements.

Here, I'll give you a sheet that lists all the general educational courses and the requirements they fulfill.

Student: Thanks.

Advisor: I like to advise students to take as many of these courses as they can each semester until they are pretty sure about their major. So in your case, you might want to take three gen eds this semester and one introductory course each in English literature and biochemistry. That way you can get a taste of what each of those majors has to offer and still stay on track.

Student: That's a really good idea. Hey, it looks like there are a couple of English courses on that list you gave me. Does that mean I can take courses in English, and they will still count toward my gen ed requirements?

Advisor: Exactly! In fact, I suggest to all my students that they try to get as much overlap as possible between their general education courses and those in their prospective majors. It just allows you a lot more flexibility in the long run. See, the college requires that you declare a major at the end of your sophomore year. That means you have four semesters to decide. But see, if you change your mind later—and a lot of students do…if you change your mind later, it's hard to pick up a new major if you still have a lot of general education courses to complete.

Student: Yeah, I see what you mean. I really want to get those courses out of the way as soon as possible.

Advisor: Good idea. I've seen a lot of students complete their general course work before the end of their junior year. And you know what? They have a lot more flexibility to take upper-level courses in their major, even do a thesis or special project, study abroad even. It just means more choices for you. It means you're more in control of your education.

Student: Well, yeah, that's what I want. I mean, it's my education.

Advisor: Exactly. Like I said, Tracy, you are off to a good start.

Student: Thanks very much.

Advisor: Any time.

Lesson 10.1

Activity 2

Student (W): Hi, Professor Shandy. I'm here for office hours.

Professor (M): Good afternoon, Carolyn. How nice to see you! Nobody ever comes to see me during office hours. In fact, I was thinking about heading out early…but not now. So what can I help you with?

Student: Well, [pause] it's kind of a dumb question, but— [very hesitantly]

Professor: Wait just a minute—there are *no* dumb questions. I want my students to feel free to approach me with all and any questions. So, *you* were saying—

Student: Um, [hesitant] it's not actually about anything we covered in class. I wanted to ask you for a letter of recommendation.

Professor: Oh, what for?

Student: Well, the Environmental Sciences Department has this program called the, uh, [thinking about] Field School Program. Basically, you can spend the summer in the wilderness working with a team of researchers on any of a number of projects. You know, they have like studies of wolf populations, they monitor wildlife, they evaluate reforestation projects, you know, stuff like that.

Professor: I've heard of it, but I don't know much about it. Who runs it?

Student: Dr. Almodovar. This is his fifth year doing it. So, um [= changing direction], anyway, I'm interested in a specific assignment in Montana. The chosen applicants go to Montana with a team of field biologists to monitor wild animal migrations in and around Yellowstone National Park. I think I'd really enjoy it—imagine working in this field laboratory set up in the middle of nowhere.

Professor: *Amazing!* What a great opportunity! Now, would you be involved in tagging the animals or anything like that? [= curious/interested]

Student: Mm-hmm [= yes]. I had a friend who did it last year and he said it was a great experience. He said they were all really professional and he learned a lot.

Professor: That sounds wonderful. So does the university grant credit for this program?

Student: Uh-huh [= yes]. I guess it's two classes worth of credit and you get to spend the summer working with a team of field biologists.

Professor: Wow! So, why are you interested in this particular assignment? And why do you want a letter of recommendation from a computer science professor? It would seem to me that you would be best off getting your recommendations from professors in the, I don't know, the environmental science or biology department.

Student: I need three recommendations and two are coming from professors in those departments. The reason I want a letter from you is because next year I want to do an independent study on, like, the development of new tracking devices. So it would be a great way for me to learn about the current technology and, uh, [thinking about] its limitations. And I hope I'm not being overambitious here, but as part of the independent study I would like to use my programming skills to develop a program that would make it easier to compile and manage data from the tracking devices. Do you know what I mean?

Professor: That's really fascinating—when I started in the field, I would have never been able to imagine broad reaches of the discipline. Now we have people working in the environmental sciences, medicine—just about anything you can think of. Well, Carolyn, from what you've told me, I think you would be an excellent candidate for this program. Is it very competitive?

Student: For this project, they're only choosing eight students. And in the past, it's mostly been seniors, so I'm kinda pushing my luck as a sophomore.

Professor: I wouldn't worry about that. Remember that in programs like this, they're looking for students who are a good fit for the study regardless of what class they're in. If you mention the independent study in your application, I'm sure somebody is going to take note. So even if you don't get accepted to the bison project, they may consider you for another one.

Student: That's true. Honestly, any kind of experience in the field would be awesome. I've been really feeling the need to put all this book knowledge into practice already, you know?

Professor: Absolutely. All right, then. I'd be glad to write the letter for you. I'll send it directly to Dr. Almodovar by the end of the week. And do keep me updated on this—as a professor, it's wonderful to see the different directions students take with any given field of study.

Lesson 10.1

Activity 3

Student (W): Mr. Bolton. I'm so glad I caught you.

Advisor (M): Hi, Sharon. What can I help you with?

Student: There's something I'd like to talk to you about. So, umm [= not sure/thinking about], I'm taking advanced physics with Professor McKee and I don't know that I'm, uh [= not sure/thinking about], doing so well in his section.

Advisor: You mean your grades are suffering, or what?

Student: No, not exactly. Right now I have a solid B in his class. I just don't think I'm picking up on everything he's saying some times. I took his class thinking—you know—I thought it would be … [pauses] *different*.

Advisor: I see. Lemme ask you something, Sharon. [pause] Are you a more visual learner or an audio learner?

Student: I'm not sure I understand what you mean.

Advisor: Um, [= thinking about] okay, do you tend to understand concepts better if you actually *see* the examples and content written down? [pause] Or can you understand a lesson just listening to it, without writing it down?

Student: Um, [= thinking about] I guess I'm a visual learner. At least in the past, I've always learned a lot from professors that actually wrote down the key points on the board or something. But I don't know if that's really the issue.

Advisor: Well, I can tell you that Professor McKee is an excellent professor, but some students find that—he's just not their style. So I guess the question I should be asking you is if you're more into theoretical physics or applied physics.

Student: Oh, definitely applied physics. It just all makes more sense to me if there's some sort of real—world use that I can tie it back to, you know?

Advisor: There's the problem. Professor McKee is all about the theoretical. And he approaches everything from that angle. He just, well [= hesitating], you know, he's a little too abstract for some students.

Student: Well, maybe. I took physics in high school and I really loved it. I had this teacher—Mr. Frank—he had this way of making things clear, you know? We did a lot of

hands—on things…and he always had lots of real-world situations. I'm not so great at math, but—but, when I did the hands-on experiments I got it—it really made sense.

Advisor: I know from talking to my other advisees that Professor McKee really gets into the calculations. For students who want to pursue a more theoretical approach, though, well, they just love Professor McKee. But for some students, when it's too abstract, well, it's harder for them to understand.

Student: Hmmm, yeah [= agreeing]. That's exactly how I feel about the class. I don't know what to do. I'm thinking of dropping the class.

Advisor: That's a little drastic. I suggest you sit in on the other section of that class. I've heard that Professor Schmidt uses a lot more real-world examples. The applied physics and math people really love him.

Student: Really [= surprised]? I thought Professor McKee was the only one teaching that level this semester.

Advisor: No. The only thing is the Professor Schmidt's class starts at 8 a.m.

Student: That's not a problem at all. Especially if he's easier to understand than Professor McKee.

Advisor: Good, so you'll check out Professor Schmidt's class on Wednesday morning, right?

Student: Yeah, for sure. If he's like what you say, I'll probably switch into his class as soon as possible.

Advisor: Now remember, I have to sign the add/drop form if it comes to that.

Student: Oh, right. I totally forgot about that. Thanks for reminding me. But what if Professor McKee feels insulted that I don't want to be in his class?

Advisor: I wouldn't worry about that. He understands just as well as anybody else that all students have different needs. Also, if you *do* decide to make the switch, you should talk to Professor McKee. I'm sure he'll appreciate if you let him know so he can update his class records as soon as possible.

Lesson 10.1

Activity 4

Student (M): Hi, uh [=nervous/hesitating]—Professor Ware, can I umm [=nervous/hesitating]—talk to you for a minute.

Professor (W): Sure. You're in my Intro to Sociology class—hmm [=thinking] John [pauses/thinking] Terrence, is that right?

Student: Yeah [=warming], that's me, you remembered my name [=surprised]?

Professor: Well, we do have a big class, but I try to get to know my students, and remember a few names, but your—your last name stuck with me. There's a Professor Terrence in our department, any relation?

Student: No, but a couple of people have asked me that.

Professor: I was just curious. So, what can I do for you today, John?

Student: Umm [= not sure/thinking about]—well, uh [= hesitating]—it's the midterm project you assigned. I'm having a little trouble with it. See, this is only my second semester, and I really like the class [pauses] but, you see, I don't really understand the assignment. Well. I mean, I understand that we have to do a comparative study of two neighborhoods. I'm just not sure how to find information about each of the communities.

Professor: Hmm [= not sure/thinking about], I'm afraid my explanation in class wasn't very clear. I've had several students come to me to talk about the project.

Student: Really? [= surprised] I thought I was the only that didn't get it.

Professor: No, not at all. It's a bit complicated, but let's take it one step at a time.

Student: Sounds good to me.

Professor: First, I'd asked each of you to select two communities. They can be neighborhoods in the city or from the surrounding suburbs. The important part is that these are places that interest you and that you want to learn about—does that make sense?

Student: Uh-huh [= yes], I picked two city neighborhoods, Bloomfield and Point Breeze, because I have friends living in those areas. Is that okay?

Professor: Yes. If you already know people in the neighborhoods, that's all the better.

Student: Whew, I was a little worried that might be a problem. [pauses] Anyway, I'm interested in those neighborhoods, and I know people there, and I understand that you want us to compare things like the types of housing, demographic information, and also do interviews.

Professor: Right, there are two parts to your comparison. First, I'd like for you to gather quantitative data, such as demographic information like population, median age, median income, and so forth. Once you've gathered that data, ask yourself how it is similar or different for each of the neighborhoods. You can even compare the neighborhood-level data to that of the city as a whole.

Student: Oh [= I understand], I see. [pauses] Hmm [= not sure/thinking about], so I guess that means I just search the Internet for the info—the quantitative data?

Professor: You can find some federal census data online, but really, I'd suggest you head over to the library here on campus and get to know the social sciences librarian, Mr. Wheeler. He's an excellent resource, plus I think you'll find him very knowledgeable about the city and its history.

Student: The library—why didn't I think about that? I guess I just got so nervous about this project I haven't been thinking clearly.

Professor: Mm-hmm [= yes], doing your first research project can be intimidating. But you can also have fun with it. Remember, sociology is about understanding the social world around us, and that means getting to know people. Students who have done this project before tell me how much they enjoyed meeting some really interesting people. And um, [pausing…and what follows should be stated as if important]—that brings me to the second part of the project.

Student: The interviews? You want us to interview three people in each of the neighborhoods, right? But can they be anybody who lives there?

Professor: Technically, yes.

Student: Technically?

Professor: You'll get credit for the assignment by doing the six interviews, but to have an outstanding research paper you should choose people from different parts of the community to best represent the diversity of people that live there. Your preliminary research will help you think about what questions you might want to ask and who you might want to talk to, like a local business owner, a neighborhood leader, an elderly resident, and so forth. Then you're ready to go out into the community and find them.

Student: So, [thinking]—I do the quantitative and historical research first, and then I go out and talk to people?

Professor: Mm-hmm [= yes] you want to start with the bigger picture, and that'll give you a better sense of what you're observing and learning from your interviews. After you talk to people, don't be surprised if you need to go back to the library again. You'll be amazed at what you *don't* know about the subject after the interviews. [pause] And of course, you'll have to know it all, or at least as much as possible, to get a really good grade.

Student: But back to the library…again?

Professor: I'm just saying that your interviews will bring up new questions, which need answers, that's all.

Lesson 10.2

Activity 1

Professor (M): To learn about ancient societies…you know, the social structure of them, what should archaeologists focus on when they go out on their digs? Big things, little things? I'll start by talking about that today. In particular, I'll describe how this relates to a city called Tikal, down in the Guatemalan jungle. It's about 3,000 years old, and guys, I've been there…it's awesome. I'll be showing some slides later. But first, let's get into it. What did archaeologists focus on in their excavation of that ancient city…just the big things? Like palaces and pyramids?

Now, as they did with other ancient cities, archaeologists investigating Tikal looked at the *monuments,* the great buildings, left behind by its wealthiest and most powerful inhabitants. At the center of Tikal is the Great Plaza where the major temples and palaces of the city are—not surprisingly, this is where archaeologists started digging. And what do you think this told them about Tikal? Well, they learned about the architectural skill of the Maya and found many fascinating artifacts belonging to the city's rulers. And not much more. So, uh, so just think about it—what if you excavated the ruins of a modern city like Washington D.C., what if you only excavated the *monuments*—what would you learn? Would you get a realistic picture of everyday life? No. Most people don't live in monuments or palaces. So at Tikal archaeologists wised up…they, uh…to get a more balanced view of life in the city, they turned their attention to the ruins of *smaller buildings and houses*. And, see, from digging there, away from the palaces and temples, they were able to learn more about who actually lived in Tikal and…what they did. They got a more accurate picture of what everyday life might have been like. Let's talk about the society of Tikal now, knowing what we know about how the archaeologists uncovered the city.

One thing soon became clear: Tikal was a major trading center. It was located between two rivers, which is good for trade—but it was also an overland trade route, so people were coming and going, trading with each other for some time. The people of Tikal, um, they imported shells and other raw materials, as well as finished products. Not everything they needed was there. But the city had its own supply of raw materials to export, to trade with other communities. And, um, because Tikal could support a dense population, it had many artisans and craftsmen who created things—like pottery, jewelry, stone tools—things that were used in the city, but things that could also be traded with other communities, and the city probably also supported full-time professional merchants who kept the goods flowing in and out of the city.

The expanded excavations suggested other things as well, mainly that such a large city required some form of bureaucratic organization—government, in other words. We know that Tikal was headed by a group of powerful dynastic families—they left their names and histories on monuments and their tombs. But the government, the ruling class, theory would suggest, would have required professionals to support them, like scribes and textile workers and other specialists. So the more archaeologists looked for evidence of these people, the more they found it, in the variation of housing, there they found proof that there were indeed several layers of society living close together in Tikal.

Okay? In addition to the rulers and specialists, we know that priests played a particularly important role. We know that because of the magnificent temples found in the heart of the city. These were likely only used by a small group of priests, relative to the population as a whole. What I want you to understand is that the religion of the Tikal Maya is thought to have developed as a means to cope with the uncertainties of agriculture. The soil at Tikal is poor, and rainfall was irregular. The population in and around Tikal depended on the priests to influence the deities…the gods…to bring them rain and determine the most favorable times for planning crops and other agricultural matters.

So, by now, I think you get a picture of the social structure of Tikal, the diversity of people—priests, merchants, ruling officials—but there is one large group I haven't talked about yet. I mentioned that this was a major population center; well, who provided the food to support this dense, diverse population? Farmers, of course. So, let's spend a little time talking about agriculture, and what excavations have revealed about the system of agriculture developed to supply such a large, dense population.

Lesson 10.2

Activity 2

Professor (W): Good evening class—tonight I'd like to talk about the final phases in the life cycle of the sun. We think of the sun as an eternal source of light and energy, right? But the sun, just like other stars its size has a *finite* life cycle, so, uh, it won't last forever. So, what I'm going to describe are the final phases, or stages, in the life cycle of stars like the sun, stars that are of similar mass and temperature, and by looking at what happens to such stars, well, we can get a pretty good idea of where our sun is headed.

You may recall that the sun *"*burns*"* hydrogen through the process of nuclear fusion… that's what creates the light and heat: fusion. Well, eventually, fusion *uses up* the hydrogen, the uh, fuel, so to speak, in the center of a star, its core—and because of this, the temperature of its core goes down; *it gets cooler*. So it contracts. Now, a funny thing happens at this point. So you know the sun is smaller, and cooler, right? Well, as it gets smaller, it um…well, it sort of feeds on itself. Yeah, you know, it needs the fuel to keep going…needs hydrogen, so it burns this fuel, well, like crazy. Got that? 'Cause it's important…yeah, the core gets smaller and tighter because it's pulling in all this fuel to keep burning. Just to keep burning. So as it burns the fuel, it gets hotter again. This is a tremendous amount of fuel. And what happens when things get hotter? I don't need to tell you this, right? Anyway, they expand…they, uh, get bigger. And bigger. And bigger!

When the sun reaches this stage—becoming a red giant, that's what we call these stars, we call this stage *the first red-giant phase*. When the sun enters the first red-giant phase it will grow to be about *sixty times* bigger than is it now. *Yet*—despite being considerably larger—the sun, when it becomes a red giant, *overall* it will actually be cooler.

Now ... [pause to change direction] in the case of the sun, when it becomes a red giant, it will look reddish instead of yellow, like our sun is now. Why? Well, red is cooler than yellow. Nonetheless, because of their size, red giants are generally very luminous…uh, bright, so that we can see them from quite a distance—a few are even among the brightest stars in the sky. Highly visible at this stage.

Is that clear so far? [pause] Just a quick recap, in the first red-giant phase, we have a [slowly] larger, brighter, cooler sun overall…with a hotter core. *Just* the core is hotter.

Okay then—the next stage, it's called the second red-giant phase—it happens when the contracting core becomes so hot that *helium* starts to fuse into *carbon* and *oxygen* nuclei. Now, don't worry about all the terms, but uh, what I want you to understand here is that like before, the star will at first become cooler, so it contracts

again—and that contraction further heats up the core, just like it did in the first red-giant phase. What else happened the first time? The core burned faster and hotter. What happens in this, the uh, the second phase? The core burns faster and hotter again. *The key difference is* in the second red-giant phase the star is now burning helium and getting hotter. Heat leads to expansion, right? So in the second red-giant phase, the star becomes an even larger red giant. You'll never see it any larger than it is in this stage.

OK, so in this phase, the core is still contracting, getting hotter. But it's still pulling in all that material from outside to burn…and now, it's so hot that it's burning blue…and that's really hot. And what you'd see, from a distance, when our sun enters this phase, what you'd see would be a huge glowing cloud-like body with a tiny bright core. There's almost nothing left of the sun now…just a tiny core and a, what looks like a huge bluish or greenish cloud.

We call this the planetary nebula phase, when a star becomes a planetary nebula. And, these planetary nebulae are among the most beautiful features of our cosmos—*yet*—they signal the coming final phase of a star's life cycle, the white dwarf phase, which I'll talk about next class.

Lesson 10.2

Activity 3

Professor (M): Today we're going to discuss the English sea dogs of the Elizabethan era—which is the late 1600s, [pause] uh [= thinking], no, make that the late 1500s. These sea dogs were kind of these jack-of-all-trades ship captains. What I mean by that is, they had a very broad job description—so basically, they did a lot of different things. They robbed other countries' isolated colonies, they claimed territory, um, land for Great Britain, and they established new colonies for the English crown. They were a group of men who served an important function, but at the same time, these men were not popular with other countries, especially Spain.

Now, this was during the time when the major nations of the world were in some really intense...um, competition with each other to take over the New World—that's what we now call North and South America…the New World. Anyway, England was one of the main competitors. Mainly, the English were competing with Spain. Spain had the biggest navy in the world at this point, you'll remember, and England was struggling to keep up—you know, to compete. So it employed the use of these sea dogs.

Now these people, these sea dogs did both legitimate work and as you'll see, some not-so-legitimate work for England. Andy?

Student 1 (M): Yeah, and from what I've read, just about everything they did was not-so-legitimate, I mean, improper...in fact, um...I'm not quite sure how to say this, but weren't they...well, pirates?

Professor: Actually, a lot of what they did wasn't so bad. [thinking] But they *were* kind-of pirates of sorts. So, yeah, you're right, Andy. Now, I said that they raided, claimed territory, and established colonies. So let's look at raiding. Raiding is basically going to a town and stealing stuff from the people forcefully…very forcefully. Um, so like Andy said [pause], by this definition, they were pirates! Now the best known sea dog was Sir Francis Drake. And he also happened to be the sea dog who was the most infamous raider. He sailed to the New World and raided Spanish colonies, stealing gold and supplies from them to take back to Queen Elizabeth and England. Oh, and here's an interesting footnote; in one of these adventures, he, um, he was trying to avoid the Spanish ships that were after him. So, he sailed the other way. He ended up making the second voyage all the way around the world, just to get away from the Spanish.

Another important role of the sea dogs was to claim territory. Several of them were sent out specifically to claim territory. Often, however, this territory had already...it had already been claimed by another country—typically, Spain. No big surprise there, right? Anyhow, since the Queen herself wasn't going to sail across the Atlantic to claim territory for the English crown, she counted on the sea dogs to do it. They would sail around, adding land to England. The idea was that this honored the Queen because it extended her rule.

OK, last is the colonization effort. Now, if you claim territory for the Queen, then you'd better put some people in the claimed areas, right? This was key. These sea dogs really helped colonize the New World. Nearly all of them tried to establish colonies in America. Interestingly, most of the colonies [cut off]

Student 1: Excuse me, professor, but the uh [pause, thinking] the textbook says this one guy, Walter, Walter...something...

Professor: Sir Walter Raleigh.

Student 1: Yeah, Sir Walter Raleigh. The book said all his colonies failed, so the sea dogs couldn't have been that important in the colonization effort, right?

Professor: Well, as a matter of fact... [pause] Oh, uh, yes? You look like you want to add something, Karen?

Student 2 (W): Well, yes, I don't mean to interrupt, but I *also* read that most of the colonies failed. But that's not the point. Anyway, I feel that just getting out there and

trying to establish colonies was the first challenge. They must've learned things from their failures, and they also must've inspired other people to try to establish colonies. Without their efforts, it's really [pause] um, it's actually really possible that colonization would've taken a whole lot longer than it did.

Professor: That's right. The Elizabethan sea dogs were not just *sort of* important in the history of the world. They were *really* important. They explored, established colonies, made England wealthier, all of that. I mean, things could've been completely different if there hadn't been any sea dogs working for the Crown. [pause] And finally, you know those other countries that did *not* have sea dogs? Well, take Spain for instance. And, um, and France too. Their position was *not* so strong in North America. So who knows, maybe it wouldn't have been such a bad idea for *those* countries to have some sea dogs of their own!

Lesson 10.2

Activity 4

Professor (W): Today I wanna talk about competition in a market economy—y'know, an economy like our own. Economists talk about perfect competition, or a perfect market, as an ideal situation, one that you don't usually find in the real world. And I'll talk about "imperfect markets" too. But first, let's start with perfect competition. So, what might a perfect market look like?

Student 1 (W): It's huge, right? I mean, lots of buyers and sellers…

Professor: Exactly…often there are a large number of buyers and sellers—thousands—*even millions*. And, uh…yes?

Student 1: Oh, sorry to interrupt, but I wanted to add that in this large marketplace no company is big enough or powerful enough to control things, like, uh, well, prices, mainly.

Professor: Very good, and that's important. In a perfectly competitive market, the decisions and actions of individual firms, or companies as you called them—individual firms have no direct influence over the market. Does that make sense? In other words, no firm can tell the market what the price will be for a good or service. In a perfect market, firms are small, and, because of this, they have to—well, you might say, they have to just go with the flow of supply and demand. Now let's move on to the *products* those firms, or companies, make and sell.

So, the second defining characteristic of a perfectly competitive market is that products are homogenous, umm... [= thinking] what this means is that in the eyes of the market, they are identical and interchangeable. Let me give an example to illustrate my point. In the real world, wheat, the production and sale of wheat, comes pretty close to a perfectly competitive market. There are thousands of wheat producers worldwide, and the wheat they product is pretty much the same. If I wanna buy a bushel of wheat, I'm going to get the same product from Farmer Bob as I would get from Farmer Dan. The wheat'll taste the same, feel the same, have the same nutrients. OK, so products are roughly identical and interchangeable in a *perfect* market…let's move on to *imperfect* competition…

[As if remembering suddenly] Oh no, wait, wait, wait…back up. One last point about perfect competition—in a perfectly competitive market there are no significant barriers to entry into or exit from the marketplace. Meaning? It's fairly easy to get into and out of the market.

OK, back to imperfectly competitive markets—if you think of a perfect market as an ideal, well its complete opposite would be the most imperfect market out there in the real world, and that's a monopoly. In a monopoly, one firm dominates the market. You've got one choice of supplier and that's pretty much it. Because so much control over supply rests in the hands of one firm, that firm also has considerable influence over price and availability. And, uh, there you go…that's why people hate monopolies so much, well, at least why *the consumer* typically dislikes monopolies. A good example of a monopolistic market is the diamond market, with one firm dominating the market and artificially driving up prices. Oh, and uh, what about those barriers to market entry? Well, unlike in a perfectly competitive market, in a monopoly the little guy is squeezed out—he can't even get started.

Student 2 (M): OK, so it's pretty obvious here that we want a perfect market. I mean, as consumers, anyway, none of us wants a monopoly. So why can't all markets just be perfect and that's that?

Student 1: Come on, all markets *can't* be perfect. I think that's the professor's point. Sometimes one company has more influence than others, like I read how one big company bought up all the key diamond mines around the world, or at least most of them. And they own the distribution networks, too. So they can pretty much set the price of diamonds and nobody can stop 'em.

Professor: Actually, you bring up a good point here…and you're both right! Of course, we *do want* perfect markets, and of course, we *can't have* all perfect markets.

Student 2: I'm not following, I mean, that still doesn't answer my question.

Professor: Fair enough. OK, let's put it this way. Do you have a spare million or billion dollars lying around?

Student 2: [answering as if the obvious answer is "no"] Um…no.

Professor: Neither do I. So I can't open a diamond mine. That's why we'll never see perfect competition across *all* markets. Some markets have developed so that small entrepreneurs are pushed out of them, but in others, like wheat, well it's closer to a perfect market and small entrepreneurs can enter that market. Now, let's move on and talk a little bit about two other imperfect market structures—monopolistic competition and oligopoly—I want to do this to show you how most real markets blend the features of perfect competition and monopoly. Okay?

Lesson 11

About 11

Script A:

Professor (M): Now, one of the most important literary devices is...is setting. Setting determines the entire mood of the work. It affects character development, plot structure...everything.

Lemme give you an example of how important this whole setting thing is. Say I'm writing a book about something scary. Ok, this…this is our first scenario. How eerie would a scene be if it were set in, say...an old, abandoned farmhouse in the middle of nowhere in the middle of the night? Cobwebs are everywhere, boards creak, the very house itself is moaning in the fierce night wind.

Now, though…and this is scenario two…now imagine you're in a roadside convenience store along a well-traveled road. Two older men are sitting in creaking old rockers on the porch. It's...uh, really dusty, and all you hear is country music and a fan whirring in the sticky heat. Not exactly scary, is it?

Your plot and characters are dependent upon the mood—and setting *creates* that mood. Now, you can use unexpected settings, but it changes the mood. It'll surprise them instead of slowly building the tension. See how setting affects plot development?

Script B:

Professor (W): In Theater, we all love to act. And our acting helps people envision the roles we're playing. But sometimes, we need a little boost. That's what makeup is for. For example, if I play an elderly woman, but I don't have gray hair or wrinkles, that's going to get in the way of the audience being able to envision me as an elderly woman. So we use makeup. We either paint makeup on, or we add fake noses, or hair. Today, we're going to focus on the painting part of makeup. Now, there are several broad categories that stage makeup falls under, and they describe the function of that makeup.

Student (M): What do you mean?

Professor: Well, the category basically tells you what it's used for. There's...there's, oh, let's see...there's age groups, character or regular makeup, racial or ethnic groups, and, everybody's favorite, special effects.

Script C:

Professor (M): One especially interesting concept in economics is the idea of externalities. These are basically just when someone is affected by something someone else did. And class, there's just no way around these things…externalities will affect you, a business, the economy, you name it.

In economics, of course, this usually has to do with money or business, or the like. For example, if someone spits out a big wad of gum on the ground, and your pant leg drags through it, that affects you, even though you didn't spit out the gum. Uh, also, if you can't get the gum out of your pant leg, that costs you. Yes, it's aggravating, but you can't do anything about it. That's because it's an externality—bound to happen and out of your control.

Now, just like this real-world application, this kind of stuff happens in economics. If your company produces something…oh, how about canned spinach. And then all of sudden people are getting sick by eating the spinach of a competitor, well, that's gonna affect you—people are gonna think that all spinach is bad, even if it's not, and your sales will suffer as the result of your competitor's lousy product.

Lesson 11.1

Activity 1

Student (W): Excuse me, Professor Martin?

Professor (M): Oh, hello, Gina. You're right on time.

Student: I appreciate your taking time to see me.

Professor: Absolutely. What's on your mind?

Student: Well, I'm looking over my schedule for next semester, and I'm, uh, really confused about what I should take.

Professor: I'm sure we can sort this out. What's the problem?

Student: Well, I've already completed most of my lower-division classes, but I'm sort of lost about the upper-division classes. I still have a few requirements for my philosophy major, and, the problem is I'm having some scheduling conflicts. I just don't know what to do. I brought a list here with me of the courses I still need to take.

Professor: OK. Well, let's take a look. [pause] So you haven't taken metaphysics yet—Philosophy 302.

Student: That's right. Metaphysics is a required course, but they're offering it at an odd time—at exactly the same time as another class I need to take.

Professor: Hmm. What class is that?

Student: Epistemology. They're offering both metaphysics and epistemology at 2:30 on Tuesdays and Thursdays.

Professor: Oh, that's surprising: offering those two required courses at the same time. I'll bet other students are having the same problem.

Student: In any case, I need both of these classes, but obviously I, uh, I can't be in two places at once.

Professor: Well, let's see. Metaphysics is being taught by Professor Mills. Have you had any courses with him before?

Student: Yeah, I took an intro class with Professor Mills a year or two back. He definitely knows his material and I got a good grade in his class, but [hesitating] I hope it's OK to say this, but I found him a little dull.

Professor: Dull?

Student: Kind of . . . kind of dry, if you know what I mean.

Professor: OK, I see. What about epistemology? It's offered by Professor Johnson; I've heard he's a really engaging lecturer. The material is difficult, but students say he's fabulous. [pause] But there's something else you need to consider I don't know if you're aware of this, but the department hardly ever offers metaphysics anymore, which I know is strange since it's required for the undergraduate philosophy degree.

Student: It's not offered every year? I don't get it.

Professor: It's unpredictable actually. Sometimes they'll, uh, offer metaphysics two or three semesters in a row, but in some years it's not offered at all. It has to do with the availability of professors to teach it. The bottom line is, if it's being offered next semester, you should take it.

Student: For sure. I really want to graduate within a year, so I'd like to finish up with my undergraduate stuff and move on to a graduate program. So I guess I'd better get metaphysics out of the way.

Professor: You'll be safer that way. They'll offer epistemology again within the next two semesters. Professor Mills may not be your cup of tea, but since you don't want to stay around here for another two or three years getting your degree . . .

Student: Exactly. So I guess that settles it. Thanks very much, Professor Martin.

Professor: No problem at all. I'm glad I could help.

Lesson 11.1

Activity 2

Student 1 (W): Hello, Thomas. How are you doing?

Student 2 (M): [disgruntled] Oh, I'm all right.

Student 1: [concerned] You sure don't sound all right. And you look stressed out. What's going on?

Student 2: Well, besides having a ridiculous amount of homework to take care of before the semester is over, I've also been looking at next semester. And it's not looking good.

Student 1: Really? What's wrong? Does your class schedule look bad?

Student 2: Actually, no, not at all—in fact, my classes look great. That's not the problem at all. It's just that, [hesitantly, not sure how to broach the subject of money] well, I…

Student 1: What's wrong then?

Student 2: It's just that [pause] well, it's just that I've been having some financial trouble lately. Paying for college next semester could be a little bit difficult.

Student 1: Oh I hear you… I hate dealing with funding issues. Everyone has to eventually, though. Are your parents not helping you out with college?

Student 2: Well, they were, but my younger brother is going to college next semester and they feel like they need to help him out, too. I understand their position, but it affects the amount of money I'll be getting from them. I'm going to have to find some more money somehow if I want to stay here in college and finish my degree.

Student 1: Well, you could always work more at your job.

Student 2: I thought about it…definitely. But I doubt I could put in any more hours there and manage to, you know, keep up on the homework and everything else going on with my classes. Let's put it this way, I'm having trouble keeping up with things right now, as is…if I put in more time at my part-time job, I'm sure my grades would suffer.

Student 1: Yeah, I completely understand. And I imagine you want to avoid student loans?

Student 2: Yeah, I'm not looking to go into debt. Besides, even if I wanted to apply for a student loan, the deadline was two weeks ago or something.

Student 1: Oh yeah, that's right. I did all of my paperwork early, so I wasn't even sure what the cut-off date was. Well, let's see—have you been applying for any scholarships?

Student 2: You know, I haven't, actually. I never seem to manage to fulfill all of the criteria required for any of them. I've looked around, but they all require a certain grade point average or something that I just don't have. It's actually kind of discouraging. So I've pretty much come to the conclusion that those are for other people—not me.

Student 1: Here, let give you a bit of advice. I worked in the scholarship office for two years—remember when I was doing that work-study program?

Student 2: Yeah, I vaguely remember that…

Student 1: Yeah, that's what I did…and I spent a lot of time going through applications and then sending off to the right organizations for students. I saw a lot of applications from people that didn't fit within the, uh, strict requirements of the scholarship. *But they still applied*. And a lot of them managed to get them.

Student 2: [perking up] *Really*?

Student 1: Yeah. The thing about most organizations giving out scholarships is that they really want to give away the money. But ironically, a lot of students just don't apply for all the scholarships. The big scholarships are the ones that everyone knows about and applies for. But if you find a few smaller scholarships that are less well known, you could probably get enough money to get through the next semester.

Student 2: [thoughtfully] Hmm—you may be right. The thing is, my grades just aren't that good. I'm afraid that even if I were the only applicant to some of these, uh, scholarships, the organizations would just keep the money and reject me.

Student 1: [laughs] Listen to you! Look, Thomas, the only way you're going to know is if you try. Besides, you're a really great writer, independent of your grades. Remember you showed me a few of your writing samples from that class you took last semester?

Student 2: I remember. I guess I'm a decent writer.

Student 1: No, you're an excellent writer. Working in the scholarship office also helped me realize how most people are just, well, really bad writers. If you can write, you should easily be able to persuade some scholarship committee from somewhere into giving you some money.

And the writing component on these scholarship applications usually isn't so hard. I remember looking at a lot of the topics during my time at the office and thinking that I could write on them—and I'm not even a good writer like you. For example, I remember one of the subjects being five hundred words on the most important event in your life. Seven hundred words on how such-and-such an invention has impacted your life. Things like that.

Student 2: It all sounds like a good idea, but I don't know where I'm going to find the time for this.

Student 1: [exasperated] You make the time, Thomas! I bet you that you'll be able to fill out the application and get the writing component on these scholarships done in an hour. Resolve to dedicate one hour each day next week to preparing these things. Writing will be nothing for you; finding these scholarships is going to be the hardest

part! The scholarship office creates a long list of scholarships available to students—go check them out!

Student 2: [excited] You know, you *might* just be right. I had discounted the idea of other people's money initially, but if you're right about this, then I should be able to apply for a few and get them, huh?

Student 1: Oh yeah, definitely. With your writing abilities, it shouldn't be too hard at all.

Lesson 11.2

Activity 1

Professor: (W) All right, we've been discussing the various aspects of colonial America lately, right, class? What was it like to live in colonial America? What problems did they have to deal with? And more specifically, we've been focusing a lot on the economy and politics, things like that. But today, I'd like to explore something that's a little less well documented than economics or politics. You probably already know that, well, it was pretty much a man's world in those days. So today, we're going to talk about women in colonial America—in particular, feminine identity. When I talk about feminine identity, it can mean a lot of things. For instance, how did colonial society view women? What was it like to be a colonial American woman? What kind of rights and privileges did they enjoy? All of these things—and other things—factor into what I'm going to refer to as "feminine identity." So let's get started.

We're going to follow a woman through her life, touching on major events that defined women in the, uh, in the colonial period. So, um, to start, a young woman in the colonies was probably educated *to some degree*—if she was lucky, maybe she would be able to do some basic mathematics and reading, but not much else. The point is, education really wasn't a priority here. The real focus wasn't on school or anything like that, but on *the home life*. Young women who still lived with their parents were expected to help, you know, around the house to—I don't know—prepare food and things like that. Basically, a woman's life in, uh—in colonial America was defined by her household. Yeah, her entire life, even after she was married.

So there were two male figures that played a big role in the woman's life and that were, uh, responsible for her well-being. Anyone have an idea what the first one was? [short pause] No one? Well, come on, people! It was her father, of course! He helped raise her and obvious things like that, but there was something even more important about the role of her father. The father was responsible for giving his

daughter a *dowry*. The word is spelled kind of strangely, so let me write it up on the board for you.

So, what was the dowry? [short pause] Well, it was like a gift of property that the father gave to his daughter. The gift could be land or money—or a combination of the two. Now, it's not like a woman could just take her dowry and, you know, run off to start her own business or farm some land or something like that. No, the dowry was basically there to make the woman more appealing to potential husbands. And make no mistake about it—a woman's dowry was a pretty important factor to her potential husband. Yeah, the dowry of a woman had a considerable impact on her attractiveness and appeal. It was a huge part of what I referred to earlier—the "feminine identity."

So we have our average colonial woman with a dowry and she gets married—most women of the day got married in their teens, maybe at the age of 15 or 16, somewhere around there. Now, the second male figure that would play a *huge* role in the woman's life was of course the husband. Once a woman was married she was exposed to a traditional law called *coverture*. Let's put that up on the board, too.

Now, coverture, like I said, was a *traditional* law. The basic gist of coverture was that when a woman got married, her person *became* part of the husband. So the man pretty much controlled things. Now, the dowry would technically still belong to the wife—it was still hers—but the husband was allowed to take the dowry and do what he wanted with it. If, for example, a woman had a dowry of some land, the husband could take that land and do anything with it. He could farm it, or whatever. It doesn't matter. Even though it still technically belonged to the woman, the husband was allowed to do whatever he wanted with it, thanks to coverture. More importantly—and this is really important—the husband was allowed to take any profit that he made off the dowry and keep it for himself. So technically it belonged to the woman, but the man enjoyed the benefits.

And coverture—well, as a final point, I'd like to talk about how coverture even followed women *to the graveyard*. When a woman died, she was buried in a graveyard and on her gravestone—I'm not kidding about this—they wouldn't even put her name on the gravestone! Nope, she was referred to as "the wife of so-and-so" or "so-and-so's widow." You can actually go into colonial graveyards and see things like—uh—"John Franklin's wife" or "the wife of Adam Hopper" on the gravestones. Crazy, huh? I mean, at least from our point of view today. Coverture was *everywhere* back then and it continued to affect feminine identity—even to the grave, so to speak.

So, I hope that these two concepts—the dowry and coverture—help you understand how the identity of a woman was formed in colonial America. By and large, she was defined by the amount of property she brought into a marriage with her and then, after she was married, by the choices of her husband. All right—that's colonial

feminine identity in a nutshell. Any questions? [short pause] No? OK, I'll see you next time.

Lesson 11.2

Activity 2

Professor (M): Today, as you can see from the board, we're going to be talking about Roman baroque architecture. How many of you are familiar with the term? [short pause] OK, I can see a few hands at least. So let me ask this: Who is comfortable giving me *a definition* of what baroque is? [longer pause, then a chuckle] Exactly! Baroque is one of those terms that you hear used a lot, but very few people are familiar with its actual meaning, much less *the architectural style*. OK, so a few things define it, but its most prominent trait is its break with Classical architecture. When I say "Classical architecture," I mean the usual buildings we associate with, you know, Classical Greece. Something like this…so here you see the Parthenon.

Now, what defined Classical architecture was its functionalism. Functionalism basically means that something exists for a reason. So you have a column. The ancient Greeks just didn't put up columns for looks—no, columns were used to hold up a roof. The roof of the Parthenon is now gone, but long ago, it had a roof. And even though the column may have been decorated a little bit, it wasn't just put up *just for* decoration. This functionalism is what defines Classical architecture: *everything exists for a useful reason*. The two main elements here are columns, which hold up the roof, and the roof itself—the pediment—which was pitched, you know, put at an angle, on either side to shed water. So this line of columns, paired with a slanted, triangular roof—this is what defines Classical architecture.

Now, *the misuse* of these typically functional parts of Classical architecture is what defines baroque architecture. Baroque style takes these elements we talked about—the column and the pediment—and does the exact opposite of Classical architecture: they just put it up for decoration. So baroque architecture still has the same technical elements, like columns and pediments, but they are used in a nonfunctional way. *This* is baroque. It has columns for the sake of columns. Maybe it will have a pediment, but the pediment is misplaced so that it doesn't function as a roof, but is just ornamental, just there for, um, looks. Baroque style, then, is excessive and nonfunctional.

One of the earliest examples we have of a truly baroque building is the Library of Celsius. Now, what's immediately evident here? [short pause] Well, let's compare it

to the Classical picture we saw before. Now, in that photo, we had columns and they were—they were holding up a pediment, right? So, you know, people could gather in the area beneath the pediment and be protected from the weather or whatever. It was *functional*. Now look at this photo and what do you have? Well, see how the columns here are used to support columns. See what I'm talking about? You have one story of columns, then right on top of them, another story. Now, clearly this isn't going to be nearly as stable as using a single column all the way to span both stories. But you know, it looks good, doesn't it?

Now, on top of each pair of columns, we have our pediments. The pediments, as you can see, are pretty ornate and decorative. But how does this break from the Classical tradition? It's obvious, isn't it? Instead of a single, large pediment that spans all eight columns, we have seven separate pediments, each spanning the length of just two columns. That's certainly not the most efficient way to construct a building, is it? But it does look good… So the important thing to notice here is that *style comes before function.* In other words, this building could have been built in a more stable, efficient way using different methods, but it probably wouldn't have come out as visually—you know, not as visually appealing, not as beautiful.

Now, when we talk about a particular architectural style, especially one as old as the baroque, we think of it influencing a particular region of the Old World, right? It's not like now, where we can go online and search for pictures and find a bunch of examples of architectural styles from a certain place halfway around the world. The really interesting thing about the baroque style, though, is that it spread *all around* the, uh, Roman Empire. Even more interestingly, baroque architecture appeared all over the Roman Empire very quickly. So this is really something…I mean, I find it hard to believe that a style became popular in so many places so quickly.

So here's Khazneh. It's located in a canyon in the city of Petra, in Jordan. And, sure enough, that was part of the Roman Empire. Again, you can see these pieces of Classical architecture, like the pediment and column, used in a purely ornamental fashion. And, again, we see these—uh—these really nonfunctional things. We're not sure what Khazneh was used for; some people think that it may have been a treasury. Others think that it might be a burial tomb. But you know, it doesn't matter, it's pretty clear that they were using pediments and columns *for decoration only* here at Khazneh, right? These things don't even serve a purpose besides being aesthetic. Why would you build a pediment—which, in Classical architecture, served as a roof—on a building carved into the side of a mountain, like Khazneh is? You wouldn't, unless it was for pure decoration.

So I hope that you've been able to get a better feel for the baroque architecture style from these examples. The key point to it is that *style comes before function*. I also hope that I gave you an idea of the scope of the baroque tradition of style—it wasn't

just secluded to a single city or region, but all over the Roman Empire, which, as you know, was pretty big. It looks like we're out of time for today, so I'll go ahead and let you go.

Lesson 11.2

Activity 3

Professor (W): We've been talking about socialization lately, which is the process of how we learn to uh, get along with people. And as you all know from the reading, or [slowing down for emphasis] *should know*, we're on the subject of attachment styles. I say this because some of you have come to me and mentioned that you haven't been able to complete the reading assignments. Too much to read. But please, *try* to do them…much of the material will appear on your midterms in two weeks. I know you can handle these assignments if you just put your mind it.

[Long pause…gathering thoughts and proceeding] OK, anyway, let's get into attachment styles. We'll go over three of these today. As you can see, I've written the styles on the chalkboard for you. First, we have the secure style, then the insecure-avoidant style. And third, the insecure-ambivalent style.

But before we get into the classifications, I'd like to give you the, uh, the big picture of what attachment styles are. [pause] Yeah, a definition. Attachment styles are at the core of our social development. How we develop socially has very much to do with *what sort* of attachment style we have. These styles develop when we're babies. In fact, that first year of our lives is really important, and it's in this period that our attachment style develops. And, I might add, the amount of attention a parent gives a baby in this stage is all-important. Here, let's go over the different classifications now, and you'll get a better idea of what I'm talking about.

Starting with the first one on the board…the secure style. What sort of person do you think might have a secure attachment style? Chris, why don't you answer that one?

Student 1 (M): Secure? Well, given the name, I'd say that person would trust other people. I guess.

Professor: [joking] You guess? You should *know* if you read the assignment…

Student 1: I read it, actually…but I, uh, [pause] I just skimmed over it. [joking too] Um. Before class. Like five minutes ago.

Professor: Well, you're right, so I'll forgive you. They *are* trusting people. And going back to the idea that these styles develop in infancy, let's look at the parent-child relationship that leads to this style. Infants that have good relationships with their parents often have this style. Mom or dad was often around. Perhaps mom or dad was always at home with the child during that first year. The parent and child bonded well, and then continued to have a good relationship after that. They're, well, *securely attached*. As adults, they often have healthy, stable relationships.

Moving on, we have the insecure-avoidant style. This is sort of the opposite of the secure style. So what do you suppose the characteristics of this style of attachment are? Yes?

Student 2 (W): They don't trust others, basically. They seem distant. I uh, I understand all this, but I'm curious about why? What conditions lead to this attachment style?

Professor: Good question. From studies, we know that lots of children who grow up in orphanages without their parents, we know that these kids are often insecure-avoidant. So the parent-child relationship does not exist really. These people avoid confrontation. And as you suggested, they tend to be distant. So they might appear to be introverted or at times even antisocial.

Student 1: I don't mean to interrupt, but could a child who, oh, say had two working parents fall into this category?

Professor: As a matter of fact, yes. Especially if both parents ignore the child when they are at home. It doesn't *have* to happen—plenty of working parents have attached babies—but it certainly can happen. Makes sense, doesn't it?

Student 1: It does, for sure. Thanks.

Professor: OK, now, we'll move onto the last category—the insecure-ambivalent style. Let me give you an example first. Have you ever known someone who's neither emotionally reserved nor outgoing? When people approach them first, they may be quite friendly. But typically, they don't just jump up and greet you, you know, they don't make the first move?

Student 2: You mean they're not exactly supersocial, but not antisocial either? Sure. Me, maybe!

Professor: OK, there you go. Perhaps you're somewhere in between the two other types we've talked about. So lemme ask a question…did you have a doting mother?

Student 2: Oh, yeah! My mom was always around. And she told me that I didn't always want that…yeah, sometimes I just wanted to be alone.

Professor: That's common. In fact, some people with this attachment style report that one or both of their parents was *always* there…I mean they would interrupt them even when the child did *not* want to be interrupted. Giving, well, untimely attention. And as a result, the child doesn't like this constant attention. The child wants to be left alone—but only at times, OK? And this continues into adulthood. Sometimes they like company, and other times, they just want to be left alone.

Lesson 12

About 12

Script A:

Narrator (M): Now listen to Dialogue A.

Student 1 (W): Bryan, the university put a hold on my meal plan until I get my account paid. But I don't have any money to pay it. So now [sigh] . . . I have to come up with money to eat on, too.

Student 2 (M): Oh, well, maybe you could go talk to the department dean. He might help.

Student 1: [sarcastically] Yeah, right. Like he has time to worry about stuff like this.

Script B:

Narrator (M): Now listen to Dialogue B.

Student 1 (W): OK, Jerry. The assignment you missed in class yesterday is a group project that should have a multimedia part, a reading part, and a speech.

Student 2 (M): A speech?

Student 1: [confirming] Yeah, right. A speech. That's what the professor said. He wants us all to get more comfortable with speaking in a formal setting.

Script C:

Narrator (M): Now listen to Dialogue C.

Student 1 (M): Jane, the professor told us that our project was due on the fifteenth, not the twenty-first. Don't you remember?

Student 2 (W): [slowly, remembering] Yeah . . . right. So we don't have as much time as we thought we did to get this done. I guess we'd better meet Thursday instead of next Wednesday. I don't want to miss the deadline.

Script D:

Narrator (M): Now listen to Dialogue D.

Student 1 (M): I had the most horrible day. My alarm didn't go off, and I was late to my biology class. Then, I went into the cafeteria for lunch and . . . [trailing off]

Student 2 (W): [prompting] Yeah, right . . . and then what?

Student 1: You won't believe it. I ran into my calculus professor and spilled chocolate milk all over her. Luckily, she's really nice and won't hold it against me. But still!

Script E:

Narrator (W): Listen again to part of a lecture in a government class.

Professor (M): OK, so a unitary system is a system of government that gives the national government—not the smaller local or provincial governments—the most power. In this kind of system, the national government is boss. It decides what powers to give the smaller governments. But it can also revoke those powers and. . . um, supersede them, by the way, [slowing down for emphasis] any time it wants to!

Narrator: Why does the professor say this:

Professor: But it can also revoke those powers and . . . um, supersede them by the way, [slowing down for emphasis] any time it wants to.

Lesson 12.1

Activity 1

Script A:

Narrator (W): Number 1

Student 1 (M): You were right, Maggie. Dr. Morris is really good at explaining all that trigonometry.

Graduate Assistant (W): Amazing, huh? [emphatically] And I didn't like math at the time!

Script B:

Narrator (M): Number 2

Student 1(W): Last week my dorm's hot water heater broke. I've had to take an ice-cold shower every day for the last five days!

Facilities Dept. clerk: (M): Hmm. [sympathetically] I'm sorry. We have a list of work orders about a mile long. I mean, we'll get to it as soon as possible, but... well, you might find somewhere else to shower for the time being.

Script C:

Narrator (W): Number 3

Student 1 (W): Because it causes blindness, and if people aren't getting enough vitamin A, they probably aren't getting enough healthy food.

Professor (M): [surprised] Well, I stand corrected.

Script D:

Narrator (M): Number 4

Student 1 (W): Jason, do you know what day that study group for Dr. Peters's World Civ. class meets?

Graduate Assistant (M): [nervously] Oh, right . . . that study group. I know Dr. Peters mentioned it. Guess I'd better find out, huh?

Lesson 12.1

Activity 2

Script A:

Narrator (W): Number 1

Professor (M): Many linguists who study the art of communication look very seriously at the subject of body language. Now, what this is, is the study, well, generally speaking, it's the facial expressions, body movements and hand gestures we use to convey meaning; you know, nonverbal means of getting your point across. [wryly] Quite a novel approach, taking into account such things, huh? [back to normal tone] Because seriously, you all know how hugely important such communication is, don't you?

Script B:

Narrator (M): Number 2

Professor (W): OK, now sometimes, a particular plant species that naturally inhabits an area gets pushed out. See, other plants—they're called invasive or nonnative species—these other plants get transported to the area where the original plant lives. And they actually end up adapting to the area even better than the native species. Before long, the native species is competing for resources—light and water and the like—with the invasive species. The invasive species can be so strong that it literally starves out the native species. [rhetorically] Uh . . . pretty brutal, huh? Isn't that awful? Anyway, let's move on.

Script C:

Narrator (W): Number 3

Professor (M): [perplexed] Well, Brandon, I'm really not sure what to tell you. I wish you'd told me that sooner. Hmm . . . I mean, we're all off next week.

Script D:

Narrator (M): Number 4

Student 1 (W): Professor Norman, I can't seem to find that book you recommended to help me understand the theories of advanced physics. [slightly agitated]Are you sure you gave me the right title name?

Professor (M): Well, it might be worth checking into. Let's see, um . . . [trailing off]

Lesson 12.1

Activity 3

Script A:

Narrator (W): Number 1

Student 1 (M): I have a question, Professor Rodgers. What was the Berrien Proviso, exactly?

Professor (W): Well, it was an interesting thing, but basically no more than a historical footnote. During the early and mid-1800s, the United States was expanding its territory pretty quickly. But one senator, in particular—his name was John Berrien—he thought the U.S. didn't have any right to take over land. So he made a statement expressing his views. But most people didn't like his anti-expansionism, and—I don't really need to tell you that it was mostly disregarded, right?

Script B:

Narrator (M): Number 2

Student 1 (W): [slight sense of urgency] Dr. Johnson, I lost my library card, and now I have a research paper due in your class in three days. Do you think you could get me a temporary permit to use at the library until it's replaced?

Professor (M): [hesitantly] Well . . . I guess that would be OK, Sarah. It's odd, but several students have been asking me for these things. Last semester this never happened. Anyway. I . . . [reluctantly] I guess I could write you out a temporary permit for now. But you know, it will expire in just a week.

Script C:

Narrator (W): Number 3

Professor (M): Sleep is regulated by a part of the brain known as the hypothalamus—oh, but the brain stem is also important. REM sleep is the most refreshing kind of sleep, but researchers have found that stimulating certain parts of the hypothalamus prevent REM sleep. Despite this, researchers, they, uh, don't know why we need to sleep. They just know that a lack of this REM sleep causes all kinds of side effects. People are grouchy, they don't reason as well . . . anyway, but they think that sleep may repair damage from free radicals in the brain.

Script D:

Narrator (M): Number 4

Professor (W): Umm . . . a lot of businesses practice something known as internal recruiting. Now what this is—it's a good idea, really—is trying to allow current employees to advance in the company and fill an open position above their current one. This works out really . . . [emphatically] *really* good for both the company and the employee. It allows the company to avoid having to go through another hiring process and familiarize a new employee with the company. For the employee, they don't have to go through the trouble of finding a new job . . . applying, being interviewed, and all that. It cuts down on costs, increases employee satisfaction—since they have upward career mobility, and stuff like that.

Lesson 12.2

Activity 1

Script A:

Student (W): Is there a complaint form or something that I need to fill out?

Facilities Director (M): Yep, it's a real short form we submit to the company we contract the machines from. Just make sure to put your name and dorm number on it. [pause] To tell you the truth, we've had more problems than ever since we got with this new company.

Narrator (W): Why does the man say this?

Facilities Director (M): To tell you the truth . . .

Script B:

Facilities Director (M): Well, lemme tell you something else. I know it's just a couple of dollars, but anytime the machine takes your money like this, you should come down and fill out the complaint form. That way we have documentation of how often this is happening. Plus, then we can also refund you whatever money you lost.

Student (W): Really? That would be great. Normally, I would just let it slide, but this time I didn't have enough money left to throw my clothes into the dryer.

Narrator (W): Why does the student say this?

Student (W): Normally, I would just let it slide, but this time I didn't have enough money left to throw my clothes into the dryer.

Lesson 12.2

Activity 2

Script A:

Administrator (W): Yeah, you need either a university-approved organization or a faculty member to sponsor your request. Can't do it alone. I'm sure Dr. Whitaker will be happy to sign it.

Student (M): Well, we didn't really want to involve him. I mean, he knows our general topic, but, well, we haven't told him the specifics. We think it'll make a better impression if he comes to it fresh like everyone else. I mean, everyone has their favorite movies, and if we don't pick his, uhh . . . [thinking about his next words] we don't want him to be biased. And, uh... well, frankly, we want to choose our own films.

Administrator: I see.

Narrator (M): What does the student mean when he says this?

Student (M): I mean, everyone has their favorite movies, and if we don't pick his, uhh… [thinking about his next words] we don't want him to be biased.

Script B:

Administrator (W): I see. Well, how about an organization? The Campus Film Society, perhaps?

Student (M): We're both members, but this really has nothing to do with that. I mean, it's *our* project, just the two of us.

Administrator: Dr. Whitaker is quite familiar with the procedures here—it wouldn't hurt to ask.

Student: Hmm… [= not sure].

Administrator: You need someone, a faculty member or a campus organization.

Student: Okay, I'll talk to my partner. [pause] Could it be one of the panel members, if they agree?

Administrator: As long as they're faculty here at the university, sure.

Narrator (M): What does the woman mean when she says this?

Administrator (W): As long as they're faculty here at the university, sure.

Lesson 12.2

Activity 3

Script A:

Advisor (M): Well, I can tell you that Professor McKee is an excellent professor, but some students find that—he's just not their style. So I guess the question I should be asking you is if you're more into theoretical physics or applied physics.

Student (W): Oh, definitely applied physics. It just all makes more sense to me if there's some sort of real-world use that I can tie it back to, you know?

Advisor: There's the problem. Professor McKee is all about the theoretical. And he approaches everything from that angle. He just, well [= hesitating], you know, he's a little too abstract for some students.

Narrator (W): Why does the advisor say this:

Advisor: There's the problem. Professor McKee is all about the theoretical.

Script B:

Student (W): Hmmm, yeah [= agreeing]. That's exactly how I feel about the class. I don't know what to do. I'm thinking of dropping the class.

Advisor (M): That's a little drastic. I suggest you sit in on the other section of that class. I've heard that Professor Schmidt uses a lot more real-world examples. The applied physics and math people really love him.

Student: Really [= surprised]? I thought Professor McKee was the only one teaching that level this semester.

Advisor: No. The only thing is that Professor Schmidt's class starts at 8 a.m.

Student: That's not a problem at all. Especially if he's easier to understand than Professor McKee.

Narrator (W): What does the advisor imply when he says this:

Advisor: No. The only thing is that Professor Schmidt's class starts at 8 a.m.

Lesson 12.2

Activity 4

Script A:

Student (M): Umm [= not sure/thinking about]—well, uh [= hesitating]—it's the midterm project you assigned. I'm having a little trouble with it. See, this is only my second semester, and I really like the class [pauses] but, you see, I don't really understand the assignment. Well. I mean, I understand that we have to do a comparative study of two neighborhoods. I'm just not sure how to find information about each of the communities.

Professor (W): Hmm [= not sure/thinking], I'm afraid my explanation in class wasn't very clear. I've had several students come to me to talk about the project.

Student: Really? [= surprised] I thought I was the only that didn't get it.

Narrator (M): What does the professor mean when she says this:

Professor: I've had several students come to me to talk about the project.

Script B:

Professor (W): First, I'd asked each of you to select two communities. They can be neighborhoods in the city or from the surrounding suburbs. The important part is that these are places that interest you and that you want to learn about—does that make sense?

Student (M): Uh-huh [= yes], I picked two city neighborhoods, Bloomfield and Point Breeze, because I have friends living in those areas. Is that okay?

Professor: Yes. If you already know people in the neighborhoods, that's all the better.

Narrator (M): What does the professor mean when she says this:

Professor: Yes. If you already know people in the neighborhoods, that's all the better.

Lesson 12.2

Activity 5

Script A:

Student 2 (M): [thoughtfully] Hmm—you may be right. The thing is, my grades just aren't that good. I'm afraid that even if I were the only applicant to some of these, uh, scholarships, the organizations would just keep the money and reject me.

Student 1 (W): [laughs] Listen to you! Look, Thomas, the only way you're going to know is if you try. Besides, you're a really great writer, independent of your grades.

Narrator (M): What does the woman mean when she says this:

Student 1: Listen to you!

Script B:

Student 2 (M): It all sounds like a good idea, but I don't know where I'm going to find the time for this.

Student 1 (W): [exasperated] You make the time, Thomas! I bet you that you'll be able to fill out the application and get the writing component on these scholarships done in an hour. Resolve to dedicate one hour each day next week to preparing these things. Writing will be nothing for you; finding these scholarships is going to be the hardest part! The scholarship office creates a long list of scholarships available to students—go check them out!

Narrator (M): What does the woman mean when she says this:

Student 1: [exasperated] You make the time, Thomas!

Lesson 12.3

Activity 1

Script A:

Professor (W): Okay, well, first, I guess I'd better give a definition of mass media just to make sure we're all on the same page. So the term *mass media* refers to the communications designed to reach the majority of the population, such as, uh... books, newspapers, radio, television, film, etc. Does everybody understand what I mean when I talk about the mass media? [pause] Splendid . . .

Narrator (M):: Why does the professor say this:

Professor: Splendid . . .

Script B:

Professor (W): Now, moving on, what does that statistic tell us about society and the media during this period? Well, first off, that media was *a lot more accessible* to *a lot more people*. Take books, for an example. Before, only the wealthy could afford to buy books. After the war, however, there was just this *profusion* of books and newspapers. You know all those tabloid newspapers you see in the supermarkets today? All of that got started during the 1920s. The coverage of the press shifted to more sensational topics like scandals or the not-so-secret lives of celebrities.

Narrator (M): What does the professor mean when she says this:

Professor: After the war, however, there was just this *profusion* of books and newspapers.

Lesson 12.3

Activity 2

Script A:

Professor (W): OK, everyone, we've been talking about team dynamics lately. And today, we're gonna stay on topic and delve into a potential problem to working with

teams. Seems odd, doesn't it? I mean, we've always heard that teams are the way to go, the, uh, the best way to get anything done is by creating a team to handle it. And of course, sure, teams really can be effective…but it all depends on how you create the team and then manage it once it's created, OK?

Narrator (M): Question 2: What does the professor mean when she says this:

Professor: Seems odd, doesn't it?

Script B:

Professor (W): Next, and this seems so obvious, make a little competition out of it. Let the team members compete against one another, but in a good way. Some people who would otherwise be social loafers will rise to the challenge. So, for example, tell your team that the first person to hit their deadline, oh, I don't know, gets to leave early on Friday. Or the company will buy her lunch. Or even something small, like he gets a candy bar! My point is that nobody likes to lose. So you'll be getting the maximum amount of productivity from each person.

Narrator (M): What does the professor mean when she says this?

Professor: So you'll be getting the maximum amount of productivity from each person.

Lesson 12.3

Activity 3

Script A:

Professor (M): One thing soon became clear: Tikal was a major trading center. It was located between two rivers, which is good for trade—but it was also an overland trade route, so people were coming and going, trading with each other for some time. The people of Tikal, um, they imported shells and other raw materials, as well as finished products. Not everything they needed was there. But the city had its own supply of raw materials to export, to trade with other communities. And, um, because Tikal could support a dense population, it had many artisans and craftsmen who created things—like pottery, jewelry, stone tools—things that were used in the city, but things that could also be traded with other communities, and the city probably also supported full-time professional merchants who kept the goods flowing in and out of the city.

Narrator (W): What does the professor mean when he says this:

Professor: And, um, because Tikal could support a dense population, it had many artisans and craftsmen who created things

Script B:

Professor (M): So, by now, I think you get a picture of the social structure of Tikal, the diversity of people—priests, merchants, ruling officials—but there is one large group I haven't talked about yet. I mentioned that this was a major population center; well, who provided the food to support this dense, diverse population? Farmers, of course. So, let's spend a little time talking about agriculture, and what excavations have revealed about the system of agriculture developed to supply such a large, dense population.

Narrator (W): Question 3: Why does the professor say this:

Professor: So, let's spend a little time talking about agriculture . . .

Lesson 12.3

Activity 4

Script A:

Professor (W): Now . . . [pause to change direction] in the case of the sun, when it becomes a red giant, it will look reddish instead of yellow, like our sun is now. Why? Well, red is cooler than yellow. Nonetheless, because of their size, red giants are generally very luminous . . . uh, bright, so that we can see them from quite a distance—a few are even among the brightest stars in the sky. Highly visible at this stage.

Is that clear so far? [pause] Just a quick recap, in the first red-giant phase, we have a [slowly] larger, brighter, cooler sun overall . . . with a hotter core. *Just* the core is hotter.

Narrator (M): Why does the professor say this:

Professor: . . . in the first red-giant phase, we have a [slowly] larger, brighter, cooler sun overall . . . with a hotter core. *Just* the core is hotter.

Script B:

Professor (W): Okay then—the next stage, it's called the second red-giant phase—it happens when the contracting core becomes so hot that *helium* starts to fuse into *carbon* and *oxygen* nuclei. Now, don't worry about all the terms, but uh, what I want you to understand here is that like before, the star will at first become cooler, so it contracts *again*—and that contraction further heats up the core, just like it did in the first red-giant phase. What else happened the first time? The core burned faster and hotter. What happens in this, the, uh, the second phase? The core burns faster and hotter again. *The key difference is* in the second red-giant phase the star is now burning helium and getting hotter. Heat leads to expansion, right? So in the second red-giant phase, the star becomes an even larger red giant. You'll never see it any larger than it is in this stage.

Narrator (M): What does the professor mean when she says this:

Professor: You'll never see it any larger than it is in this stage.

Lesson 12.3

Activity 5

Script A:

Professor (W): So there were two male figures that played a big role in the woman's life and that were, uh, responsible for her well-being. Anyone have an idea what the first one was? [short pause] No one? Well, come on, people! It was her father, of course! He helped raise her and obvious things like that, but there was something even more important about the role of her father. The father was responsible for giving his daughter a *dowry*. The word is spelled kind of strangely, so let me write it up on the board for you.

Narrator (M): What does the professor imply when she says this:

Professor: Well, come on, people!

Script B:

Professor (W): So, what was the dowry? [short pause] Well, it was like a gift of property that the father gave to his daughter. The gift could be land or money —or a combination of the two. Now, it's not like a woman could just take her dowry and, you know, run off to start her own business or farm some land or something like that. No, the dowry was basically there to make the woman more appealing to potential husbands. And make no mistake about it—a woman's dowry was a pretty important factor to her potential husband.

Narrator (M): What does the professor mean when she says this:

Professor: And make no mistake about it—a woman's dowry was a pretty important factor to her potential husband.

Lesson 12.3

Activity 6

Script A:

Professor (W): We've been talking about socialization lately, which is the process of how we learn to, uh, get along with people. And as you all know from the reading, or [slowing down for emphasis] *should know*, we're on the subject of attachment styles. I say this because some of you have come to me and mentioned that you haven't been able to complete the reading assignments. Too much to read. But please, *try* to do them . . . much of the material will appear on your midterms in two weeks. I know you can handle these assignments if you just put your mind to it.

Narrator (M): What does the does the professor mean when she says this:

Professor: And as you all know from the reading, or [slowing down for emphasis] *should know*, we're on the subject of attachment styles.

Script B:

Professor (W): Moving on, we have the insecure-avoidant style. This is sort of the opposite of the secure style. So what do you suppose the characteristics of this style of attachment are? Yes?

Student 2 (W): They don't trust others, basically. They seem distant. I uh, I understand all this, but I'm curious about why? What conditions lead to this attachment style?

Narrator (M): What does the does the student mean when she says this:

Student 2: I uh, I understand all this, but I'm curious about why?

Lesson 13

About 13

Professor (W): We've talked about Roman textiles and the various materials they used to make cloth—materials like wool, silk, cotton and some others. But what about the colors? Romans colored their textiles with various dyes, and some Roman clothing was quite colorful. One very famous color they used is called Tyrian purple. The dye used to get this color was so costly that only the extremely wealthy could afford it. Why was Tyrian purple so expensive? Well, it has to do with its manufacturing process. OK—so let's say you want to dye, to color, one toga—just one robe! Well, the first thing you have to do is go to the seashore and collect 10,000 murex molluscs—the murex, well, it's a kind of sea creature—a sea snail that lives in a shell. Now, inside the shell of this snail there's a gland that contains the dye. So after you collect the snails, you have to extract the gland from the shell, um, the uh—10,000 shells. Next, after you've removed the glands, you put them in a big container with salt for about three days to dry them out. What you're doing here by drying out the glands with the salt is…you're concentrating the dye. After this, and we're not sure exactly, but it appears that the Romans then added wood ash to the mixture, along with water. The wood ash prevented the mixture from becoming too acidic. Then the entire mixture was boiled for several more days until the water evaporated. And in the end, they had pigment, you know the uh, raw color that was used to dye the clothing.

Professor (M): Within the Taiga itself, you'll find three subzones. The first of these you come to, as you're going south, is called "open" forest. The only trees here are needle-leaf trees. You know, evergreen trees--what we call "coniferous trees". These trees tend to be--small and far apart. This is basically tundra; it looks like tundra, but with a few small trees. Next, you come to what's called "closed" forest--with bigger needle-leaf trees growing closer together. This feels more like a REAL forest. This subzone, well [pause] if you like variety, you're *not* going to feel happy here! You can travel for *miles* and see only half a dozen species of trees. In a few days, we'll be talking about the tropical rain forest--now *that's* where you'll see variety. OK--finally, you come to the "mixed" zone. The trees are bigger still here, and you'll start seeing some broad-leafed trees, deciduous trees. You'll see larch, aspen--especially along rivers and creeks--

in addition to needle-leaf trees. So this sub-zone feels a *bit* more like the temperate forests we're used to.

Lesson 13.1

Activity 1

Professor (W): So, today, we're going to talk about something that we don't usually hear a lot about in engineering classes--biology. More specifically, I want to talk about biomimicry.

What IS biomimicry? [pause] Well, it's the study of natural processes or systems with the goal of finding solutions to practical problems. Essentially, biomimicry is the practice of looking to biology for solutions to engineering problems.

The classic example for biomimicry is Velcro®. You all know what that is? [pause] Velcro® is a type of fastener used in lots of products, for example in belts and shoes, but lots and lots of other things as well. It has two components: on one side, you have these tiny hooks. On the other, there are wooly loops. When you put these two components together, they fasten together and you can pull them apart as well. OK? [checking student's understanding], Well--Velcro® was developed in 1941 by a Swiss inventor. What happened was that he was on a hunting trip and as he was walking through the woods and fields, these little dry seeds, called burs, kept getting caught on his clothes. Anyway, when he took a closer look at the burs, he saw that they had tiny little hooks on the end and it was these hooks that were getting caught in the fabric of his clothing. Here's where the biomimicry comes in--he realized that by copying that hook design of the burs he could create a good fastener.

OK, let's consider another application of biomimicry--thermoregulation. Of course, we have air conditioning. But it turns out that nature has cooling systems of its own! [pause] See, in many parts of the world, there's a type of termite called mound builders. These insects, these mound-builder termites live in GIANT dirt mounds which can be up to eight meters tall! Anyway, scientists discovered that the insects are able to maintain a constant temperature and humidity within the mounds. That's even when outside temperatures are over 40 degrees Celsius! How do they do that? [pause] Well, it seems, um, the termites build a network of vents throughout the mounds. Over the course of the day, the termites open and close these vents to help regulate the temperature inside.

So how can we apply this system for the purposes of keeping our buildings cool? We would, we'd have to copy the structure of termite mounds, right? In fact, an office building in Zimbabwe did just that. It's called the Eastgate Centre and it opened in 1996. It's actually modeled after the interior structure of termite mounds. So the Eastgate Centre is able to not only maintain cool temperatures, but also use less energy than similarly-sized buildings. That way, it's great for both people and for the environment.

Now, let's shift our attention to another creature that's been at the center of biomimetic projects: the spider. In particular, scientists are interested in a type of spider silk called "dragline silk." Ever seen a spider hanging from a ceiling? [pause] The silk it's hanging from…that's dragline silk.

Now, dragline silk is strong. So strong, in fact, that if you were to compare it, ounce for ounce, to steel, dragline silk would be about five times stronger. What's more, dragline silk is even stronger than um, Kevlar®. That's um, a material used in bulletproof vests and military helmets that was developed in 1965. Anyway, back to spider silk. The incredible strength of dragline silk has to do with its unique physical properties. The silk is made up of two different proteins which have crystal and non-crystal parts. The non-crystal parts are flexible and give the silk its elasticity. The crystal parts, on the other hand, are rigid…they do NOT stretch. The combination of these parts makes dragline silk both strong and elastic.

For years, scientists have been trying to find a way to copy the process used by spiders in creating this silk. In 2002, a company in Canada had some early success creating synthetic spider silk. I wouldn't be surprised if, in the near future, we see clothing reinforced by this product.

Activity 2

Professor (M): So, today, we're going to continue our discussion on agricultural productivity. We know that soil quality is really important for productivity--yet, it seems that even in places with bad soil, agricultural productivity can be quite high, as long as people have effective soil management techniques. A remarkable example of this is found in parts of the Amazon region.

Student 1 (W): [surprised] Is the soil in the Amazon bad? With all the biodiversity there, I would have thought that soil would be really fertile there.

Professor: Most people would say the same thing. But the truth is that the soil in the Amazon is actually very poor. In fact, throughout the Amazon, most of the nutrients are found in just the top two inches of the soil. [pause] Still, people have lived in the Amazon for centuries, and some of these indigenous groups were – and are -- farmers.

Student 2 (M): Did the soil used to be better ?

Professor: No, but it turns out that, at least in some areas, people developed a method for improving soil of poor quality. And today, throughout the forest, there are pockets of an extremely rich soil called terra preta. The English here comes from a Portuguese word – it means dark earth. Apparently, this dark earth is up to three times as productive as the typical Amazonian soil.

Student 1: Wow, that's amazing! How did they do it?

Professor: We don't know all the details of the process, because the indigenous groups that made terra preta stopped doing so long before Europeans first arrived in South America. But by studying samples of terra preta that still exist today, it's possible for us to reconstruct the essential steps involved. [pause] The first step was undoubtedly to incorporate wood charcoal into the existing soil.

Student 2: Wood charcoal? What did that do?

Professor: For one, it improved the soil's ability to retain nutrients. See, charcoal, which, as you know, you make by burning wood, is porous…it um, it has little holes all through it and nutrients end up getting caught in those tiny pores. And when there are floods, which happen pretty frequently in the Amazon, the nutrients don't get washed away. They stay there, in the soil. Does that make sense? [pause] OK, then. So after adding wood charcoal, it's likely that a different type of charcoal was also added to the soil. This other charcoal is called "biochar." [pause]

So, what's biochar? [pause] Basically, biochar is a kind of charcoal that's made by burning organic materials…like leaves…very slowly and at low temperatures. Anyway, the reason that biochar is really important is because it promotes fungal activity.

Student 1: Fungal activity? Is that really something you'd want in a farming soil?

Professor: Well, there are good fungi and bad fungi. The type of fungus that's attracted to the biochar, and that's found in terra preta, is a good fungus because it breaks up everything in the soil, allowing the soil to bond with nutrients and minerals. And in the process, more soil is created, and it will continue to self-propagate, under the right conditions, for up to twenty years. In this way, terra preta is like a living organism! [pause]

Now, the next step probably involved stirring living creatures into the soil. Obviously, they wanted animals that would help improve the quality of the soil. Among these creatures was the earthworm, which would break down the charcoal and mix it with the available soil. This helped create a better media for plants to grow in and released some of the materials, like carbon, that were stored in the charcoal.

OK, so after the introduction of charcoal, biochar and living organisms, there was a final step in the process, one that is a lot more…passive. Essentially, it involved doing nothing—literally for hundreds of years in some cases—and just waiting for the charcoals and the bugs, to do their job. It's true that that's a long time, but once the soil was ready, it remained fertile for several centuries.

Activity 3

Professor (M): We've been talking about the fundamental principles of ecological succession, and I want to talk now about an interesting case where ecological succession occurred. Um--I trust that you all read the chapter on the volcanic island, Krakatoa? [students murmur assent] Good. So--just to recap, there was a huge volcanic eruption on the Indonesian island of Krakatoa, in 1883. The eruption was so devastating that all plant and animal life on Krakatoa was completely destroyed.

Well, let's take a look at that event in the context of ecological succession--you remember, the process by which plant and animal life develops in an environment. Now, there are two types: primary succession and secondary succession. Primary succession occurs in places that have no life on them at all. In contrast, secondary succession occurs in places where the environment has been disturbed, but is still home to some organisms. [pause] OK, so my, uh, question for you is: was the succession we've observed on Krakatoa over the past hundred years an example of primary or secondary succession? [pause] Go ahead, Jenna.

Student 1 (W): Well, like you said, primary succession occurs in places where there's no life at all. So, uh, like where there's entirely new substrate such as bare rock or sand.

Professor: Define substrate for us, please, Jenna.

Student 1: Well, the substrate is the surface…um, the material that an organism lives on and gets its nourishment from.

Professor: Good. Go on, please.

Student 1: Well, on Krakatoa, I'd say that it has to be primary succession, because the substrate there was just hardened lava, right?

Student 2 (M): But--according to the reading, researchers found a tiny spider living there just a few months after the eruption. Some biologists have argued that the spider survived the eruption--and that other organisms might have as well. Wouldn't that make it secondary succession?

Professor: OK, you've both made good points. However, in this particular situation, we can safely say that Krakatoa is, indeed, a case of primary succession. If you want a good example of secondary succession, look at the wildfires that occurred in Yellowstone Park during the 1980s. After all, the fires only disrupted the ecosystem, rather than completely destroying it. Furthermore, the area was repopulated within twenty years. Don't forget…a major difference between primary and secondary succession is the…uh, the rate at which it occurs. Primary succession can take a hundred years or more. Secondary succession is more rapid.

Anyway, for now, let's just focus on the process of primary succession on Krakatoa. Post-eruption, our starting point is a barren environment, devoid of life. Then, as Tim mentioned, researchers found a small spider. It was one of the only signs of life and signaled the first stage in succession. Were there any others…? [waiting for student responses]

Student 1: Um…well, I read that, along with insects, there were some grasses and shrubs on the island just three years after the explosion.

Professor: That's right. What is the term for those early organisms?

Student 2: Uh [thinking]--is it pioneer species?

Professor: Correct. The first step in primary succession is the emergence of pioneer species. They include, mostly, animals and plants that are pretty small. And, this is true in both primary and secondary succession. Uh--sorry, I mean, during the first stages of both types of succession, it's usually just smaller organisms that emerge. But, as I've said, I want to focus on primary succession today. So, getting back on track--can anyone tell us what the next stage of primary succession is called?

Student 1: Are you referring to seral communities?

Professor: Mmmm, yes. The formation of seral communities is an absolutely vital stage of succession. Just to clarify, seral communities are communities of closely-grouped plants and animals that support each other. Over time, new species enter these communities. These might take decades to, uh, develop--for example, consider the transition from grasses and shrubs to trees and flowers in an environment.

Without seral communities, succession can't advance towards the, uh…the final stage: the climax community. At this advanced level, after a hundred years or so, we find examples of different climax species. Basically, this is the end stage in the process, when the environment has reached its, um, peak capacity and we expect to see many diverse climax communities. At this level, a point of balance and stasis has been achieved. So…based on this information, in which stage of succession can we place the current environment on Krakatoa?

Student 1: Well, today, there's an abundance of vegetation. The wildlife population is diverse, with many different kinds of insects, birds, snakes and fish. Uh…to me, that would indicate that Krakatoa is in the final stage of succession, with many different climax communities.

Activity 4

Professor (W): OK, let's get started. Who knows what ephemeral means? [pause] Let me help you out—it means "lasting a very short time". I want you to know that because today we'll be talking about ephemeral waterbodies. These are bodies of water, um, like streams, lakes or ponds, which are typically formed when a depression in the ground is filled by rainfall or snowmelt. The defining characteristic is that the body of water only--um, it only remains for a short time. In some cases, ephemeral waterbodies only hold water for just a couple of days! [pause]

There are different types of ephemeral waterbodies. The smallest only hold a few liters of water, like the puddles that you see after a rainstorm. Then there are waterbodies that are actually quite large. Consider arroyos, for example, which can wind through a desert landscape for kilometers. Um, sorry--for those of you who don't know what those are, arroyos are canals that are commonly found in desert regions. [pause] Most of the time, these canals are dry, but when there is a heavy rainfall, the arroyos fill up with water. Some of these occur naturally, while others are actually man-made.

Uh, another example of an ephemeral waterbody that can be pretty big are playas. You might actually know of these by another name. I know sometimes they're called dry lakes or, uh, even salt flats. Well, like arroyos, playas are often found in deserts and only fill up when there is heavy rainfall. When the water in the playa evaporates, the crystallized forms of a bunch of different, you know, minerals are left behind, including, most commonly, salt. The largest of these, located in Bolivia, is over 10,000 square kilometers!

Now, many people think that because ephemeral waterbodies exist for only a short time, they are inconsequential. Perhaps because of this dismissive attitude, developers have started constructing homes and offices over many of the areas where ephemeral waterbodies form. The problem with this is that these bodies of water actually make up a really important ecosystem, and their destruction can hurt a number of animals.

Right now, I imagine you all are wondering what type of animal would choose such an--um--[trying to come up with good word] unpredictable ecosystem for a habitat. Surprisingly, there are actually quite a few. And in some ways, ephemeral

waterbodies are actually perfect habitats for some species, including amphibians like frogs and toads. You see, frogs and toads lay their eggs in water and, after they hatch from their eggs, they remain in the water during the first few stages of their life. Then, on reaching maturity, they move to the land. —Well, in typical aquatic environments, there's always a danger that fish will eat the eggs or the developing animal. So here's one way that ephemeral waterbodies are great for the amphibians. Because ephemeral waterbodies last for such little time, fish cannot survive in them. That means that young frogs and toads stand a greater chance of reaching maturity without being gobbled up. So you see, the ephemeral waterbody is an essential part of the life cycle for certain types of amphibians. And that's just one of their benefits.

Lesson 14

About 14

Professor (W): Today we're going to talk about the relationship between the brain and the body. I think most of us think of the brain as a type of commander . . . issuing orders to the body ... for different parts of the body to carry out. But I think it's more accurate to think of this as a conversation between the brain and the body. Because any movement, even a basic one . . . let's say, waving my hand, for example—it's very simple, really . . . but it still involves three steps. First, the brain has to issue the command. Second, the command must be executed. And third—now this is the crucial step—the hand needs to report back to the brain: "Hey there, brain, I'm waving . . ." for the brain to understand that the action's been carried out.

Now this conversation happens constantly. All over your body, the brain is sending commands . . . various parts of your body are receiving these commands, and then reporting back. And this all adds up to something pretty important: it adds up to this sense you have of . . . your own body. It's an unconscious sense, mostly, but it's a crucial sense that . . . that allows you to move normally.

You're all familiar, of course, with the five basic senses: hearing, sight, smell, touch, and, um, taste. But this sense—this sixth sense, if you will—also has a name. It's called proprioception from the Latin proprio, meaning "belonging to," and the word perception.

Proprioception is the unconscious sense by which the position of one's limbs, the posture of one's body . . . is automatically monitored. I'll give you an example: in a dark room, if you wave your hands around in front of you . . . you can't see where your

hands are, of course, but you still have a sense . . . an awareness . . . of where your hands are in space. That's proprioception in action.

So how exactly does proprioception work? Well, the brain receives information from a couple of places: from organs in your inner ear that help you maintain balance and from various sensors located in your muscles and joints. With the ear . . . your ear has, obviously, auditory sensors . . . that is, um, sensors that help you hear, but it also has what are called the vestibular organs, that is, organs that help your body to maintain its sense of balance. These organs—in your ear—give your brain information about motion and direction . . . whether you're walking in a straight line or turning left or right. This monitoring of motion and direction to . . . to maintain balance—this is actually a different sense . . . , but it plays a role in proprioception. So . . . that's the ears' role.

As for the muscles . . . your muscles, um, contain spindles . . . that are located parallel to the muscle fibers. And these spindles . . . they stretch and contract along with your muscle. So they're able to send the brain pretty accurate information about what the muscles are doing. Along with your muscles, you also have tendons—that's the tough, connective tissue that attaches the muscle to the bone. And located in the tendons are the Golgi tendon organs. The Golgi tendon organs sense the force that the muscle is exerting. So the muscle spindles send information about the muscle's stretching and contracting, and the Golgi tendon organs give the brain information about how much force the muscle is exerting. And that's the muscles' role.

Now think about how much your brain has to process. Your brain is constantly monitoring all this sensory information and checking to see where the limbs are. There are people who—due to accident or disease—have lost this sense. They have no sensation of . . . of the movements of their body parts. So they live a very unusual life in which the only way they can know about their bodies is through vision. They need to . . . like, go to bed with the lights on, because if they wake up in the middle of the night they need to see where their arms and legs are, so they can get up. Their limbs are like external objects that they can only experience by looking at them. They don't have this intimate sense of where their body parts are and how to make them work together that you and I have. So that's a pretty powerful demonstration of just how important proprioception is in our lives.

Lesson 14.1

Activity 1

Professor (W): Now, I know you've all been shopping before. If nothing else, you've shopped for groceries so you have something to eat while you study for my class. [chuckles from students] Seriously, though, you've all shopped for things like [pause] groceries, clothes, um, shoes . . . What else do you buy?

Student 1 (W): Well, I buy books [pause] and stuff for school.

Student 2 (M): I just had to buy a bicycle!

Professor: OK. You see there're so many things to buy. Now, have you ever noticed how some things are different prices for different people? Why is that? Why does one person pay one price for an item and the next customer pays less?

Student 1: One time I bought a shirt for eighteen dollars at the mall. A friend of mine bought the same shirt later for only fifteen!

Professor: Sad, right? When retailers sell the same item to different customers for different prices, well, that's price discrimination. There're three conditions that must exist for price discrimination to exist. First, there needs to be a monopoly.

Student 2: What exactly do you mean by that? I mean, I sort of know, but . . .

Professor: That is when there's only one store or [pause] when a small group of stores band together and set the prices. Without the competition, the company or members of the monopoly can control prices. But when there are many similar stores, well, then discrimination is less likely. Does everyone understand? [murmurs of agreement from students] The second condition is market segregation. If all people want the exact same thing, there won't be discrimination. But when was the last time everyone wanted the same thing? And, some people want some things more than others. The third condition concerns resale value. Price discrimination eases, it's less common, if reselling is easy. Let me give you some examples. That might, uh, make this concept a bit clearer. The best example is airline tickets. Airline tickets are always different prices, right?

Student 1: Yeah, I know what you mean! For one thing, there are first class tickets and economy class tickets. And my ticket home to visit my parents is cheaper if I stay over a Saturday night.

Professor: Exactly. The strategy allows the airlines to discriminate against businessmen and women [note to voice talent: meaning, "businessmen" and "businesswomen"; not "businessmen" and "women"]. Why?

Student 2: Um, because they have to travel during the week?

Professor: Yes, right. Another example you're all familiar with is college tuition. Some students are given large financial aid packages, others are not. So, although the college charges the same tuition, not many of you are paying the same amount.

Student 1: Does it work the same way with college textbooks?

Professor: Not exactly. Even though the books for different classes might be different, the books for one class are all the exact same price—see? Let me come back to that in a few minutes. Here's another example: take coupons. The Sunday newspaper is huge, right? Besides the news, it's filled with flyers, sales ads, and coupons for the local markets. Let's focus on the grocery store coupons. Some people spend hours looking through them, cutting them out, and then getting money off their purchases. You wouldn't think twenty cents here or twenty-five cents there is much, but it can add up! Because those people are more willing to take the time, they get the lower prices. Some, say, wealthier or, uh, busier people, don't take the time. They get charged the higher price. All the canned soup is a dollar forty-nine a can. That price doesn't change. However, maybe the poor college student [chuckles] cuts out the thirty-cent coupon. She—or he—will pay only one dollar nineteen cents. The wealthy professor, no, how about this, the *busy* professor doesn't have the time. So I go to the store and I still pay one forty-nine.

Student 1: Oh, I see.

Professor: Now, back to the bookstore, if you have a coupon for your book and your roommate pays the regular price, then you have a variety of price discrimination. Otherwise, the book is the same for both of you. No price discrimination. OK? Let's go on. The next example is quantity discounts. Has anyone been to that new bulk store on Oak Street?

Student 2: Yeah, some of my friends have. They told me you can buy a whole lot of one thing for cheaper than just buying one of that thing.

Professor: To some degree, your friends are right. But be careful! This form of bulk buying breeds price discrimination. It allows the retailer to charge more for the first unit than the last. It works because buyers are usually less willing to keep spending money as the number of items they are purchasing goes up. In other words, buyers kind of realize how much they're spending and tend to stop purchasing. So retailers need to make sure they make enough money on the first units.

Student 2: But, T-Stop, that store that sells t-shirts, doesn't price-discriminate, right?

Professor: That's right. Every t-shirt whether it is small, medium, large, or extra-large, is always ten dollars. The price never changes, no matter the size or color of the

product, and, uh, more importantly, it doesn't change depending on the customer. It doesn't matter if a *busy* professor walks in. I still pay ten dollars. Any same-price store, such as Dollar Master, where everything is the same price, does *not* price-discriminate. Any questions? Okay, then class, let's break. Read pages 100–109 in your textbook, and I'll see you next time.

Lesson 14.1

Activity 2

Professor (M): Good morning, everyone. I hope you had a chance to read Chapter 10 in your textbook. We've been discussing needs in class, you'll recall, needs, um, in relation to growth. Think back to earlier classes when I introduced Abraham Maslow, the American psychologist and one of the founders of humanistic psychology. He believed when people make complete use of their potential, they achieve personal self-actualization. Before we discuss that concept further, though, you need to understand Maslow's hierarchy of human needs. Take good notes. This material will be covered on the next exam. In this hierarchy of Maslow's, some needs are very basic, some are more powerful. What influences your behavior? What motivates your actions? What makes you do act a particular way at certain times? Keep those questions in mind as we progress through the hierarchy. Imagine, if you will, a triangle. See my drawing on the board? Divide that triangle into five sections [sound of writing on board]. The bottom section comprises the more basic needs. Maslow called this section "physiological needs." These are the needs that must be met in order to keep living; thus, class, they are quite powerful. If you don't have these, you essentially do not survive. What are some physiological needs? Air, food, water, and, um, sleep to name a few. Sleep is a very powerful motivator. Think of how you feel when you're very tired! Do you function well in class? Do you even feel like going to class? No. You just want to sleep. It's after you satisfy that need for sleep that you feel better and then perhaps feel like studying. And, you certainly are more productive after that need is met. Now, class, as you progress, note that the needs of each level can't be met unless the needs classified in the levels below it are satisfied. So, the next level is "safety and security." Following that is "love and belonging," which includes feelings associated with friends and family as well as romantic love. And the fourth level is "esteem and self-esteem." It is this fourth category that includes self-respect and recognition. Maslow, uh, clumped—categorized, so to speak, these four levels together as basic needs. These needs are deficiency motives. Meaning, class, that *not* having any of these needs fulfilled prevents people from growing and experiencing their fullest potential. For example, a person who is, oh, let's say, very hungry, isn't going to want to study for a test or hang out with

friends at the student union. Hunger, a physiological need at the very bottom of the hierarchy, won't let this person study (which would fulfill a self-esteem need) or talk to friends (which would fulfill a love and belonging need) until after that most basic need is satisfied. Until all four basic need categories are satisfied, the top need is unattainable. The top need is "self-actualization." Let me write that on the board so you can see how to spell it [sound of writing on board]. Review Chapter 1 to refresh your memory about humanistic psychology. Humanistic psychologists believe that if the basic needs are met, then people can grow. Remember, this is not physical growth. It does not matter how tall you are. This is true, inner growth, growth to a personal high point. Maslow considered these incredibly important; hence, he put this at the top of the "pyramid" and it is this top level of his hierarchy that encompasses the "growth needs." Growth needs are made known via meta-needs. Meta-needs are things such as beauty, playfulness, truth, and goodness. There are more, um, fourteen in all so make sure to see the complete list in your book. Maslow thought that if meta-needs are not met, people become apathetic, or unsatisfied, if you will. He felt people would feel despondent—sad, hopeless—if meta-needs are not eventually attained. Let me give an example. Did anyone read the paper yesterday? About the man upset about a court decision? This gentleman didn't agree with a decision the court had made. He felt strongly that justice had been denied. So strongly, in fact, that he went to the courthouse and sat on the front steps, refusing to move until the decision was overturned and what he believed to be the right decision was made. He sat for two days with no food, no water. No one spoke to him. This man was attempting to fulfill the meta-need, justice. Maslow would not question this man; Maslow would say he was self-actualized. How do you explain how a meta-need becomes so strong, so strong that it comes before the most basic needs like food? It's a difficult concept, isn't it? Most people seem more concerned with winning a race or, um, finding a boyfriend or girlfriend, which both fulfill a lower-level need. Very few people seem motivated by the meta-needs of autonomy, meaningfulness, or uniqueness. Is society far more concerned with other needs? As you leave class today, think about what motivates you. Be prepared to share your thoughts during our next class on Tuesday.

Lesson 14.1

Activity 3

Professor (M): Good afternoon. We have a lot of material to cover today, so let's get started. What we consider "theater" today is not anything like theater in the ancient world. In reality, theater as we know it now has only existed for about—oh—four hundred years. It wasn't until the sixteenth century that theater in the Western world

began to take shape. However, today's theater, although far different, has its foundation rooted in ancient Greece, Rome, and medieval Europe. Let's travel to ancient Athens first. Not only did the Athenians invent democracy, they were also forerunners in the development of drama. Greek dramas, often tragedies, depicted what happened when a man, a mere human, tried to change fate. These powerful themes were performed in the Theater of Dionysus. This "theater" as they called it, was really just a hill; however, the Greeks converted this into a permanent structure. And a huge permanent structure it was. It could seat fourteen to seventeen thousand—that's *thousand*—spectators. This suggests the importance Greeks placed on the theater. You might ask how such performances were funded. Primarily, the state paid the expenses of a theatrical performance. However, wealthy citizens played a role. These wealthy men took responsibility for training and costuming the performers. Although the Greeks invented democracy, women were not permitted large roles in society. Some accounts state that women, and even slaves, were permitted in the theater, but for the most part, the audience was composed of men and boys. But, in any case, violence was strictly prohibited and punishable by death. Officers were present at the performances to maintain control. Perhaps one of the most famous Greek tragedies is *Oedipus Rex,* which features a typical Greek theme: do not fight fate, for the gods are in control. We'll study the play in class and watch a filmed performance later. You'll read the play in your textbook; check your syllabus for the page numbers. OK. Let's move now to Rome. The Roman theater had some similarities to Greek theater. We'll talk about those first. Roman and Greek theater were also, um, vastly different in some ways and we'll note those. First, the similarities. Both were performed outdoors, and the audience sat surrounding the semicircular orchestra. Roman performances were also funded by the state. Admission was free, and there was no reserved seating. However, although the Greek theater was a permanent structure, Roman theaters were temporary. They were also smaller. The Roman actors performed in front of a few thousand people. Perhaps a more notable difference was the nature of the audience. Roman audiences were often unruly and did include women, children, and slaves. Because there were so many other attractions in Rome—um—like—gladiators and rope dancers, Roman performers had to provide entertainment that would satisfy the audience members or risk losing them to other activities. Think of how movie producers must feel today. Movies can be a fabulous form of entertainment, but society is saturated with all sorts of other entertainment too. Therefore, a movie has to be exceptionally good to get people to see it. Perhaps that's why Romans liked comedies. Comedies were far more lighthearted than the Greek tragedies that explored the acceptance of the will of the gods. We'll read *The Menaechimi*, a Roman comedy, in class. Whereas *Oedipus Rex* tackles the very serious theme of fate, this comedy has a general, good-natured, humorous cynicism. Philosophers believed that virtue was the only good and the only way to achieve it was by self-control and independence. Later in the semester, when we study Roman theater in more depth, we'll read the prologue of *The Menaechimi*; it'll give you all the background and important points you'll need to

know. Roman comedies did not include political issues. Rather the plots revolved around misunderstandings—um—such as a mistaken identity. Roman plays were also far more musical in nature. There was a flutist on stage throughout the play, and the plays often included songs performed by the actors, and not just the chorus, as had been the practice in Greek theater. These musical comedies led to what are modern-day musicals. OK, let's touch on medieval Europe before our hour is up. European dramas differed drastically from the others—namely, in the setting. European plays began as liturgies, that is, short religious plays, yeah, liturgies. So they were often seen in churches or monasteries. The plays were *very* short. *Very*. Some were only a few lines long. Also, they were the most musical in that they were sung or chanted. It wasn't until much later that these were no longer written in Latin and then more often spoken rather than sung. It was also then that the clergy no longer played the roles and men, that is, men not of the church, became the performers. Churches in that time had no fixed seating, so it left large, open spaces for scenes, performers, and audience members. Now, of course, they did later flourish and move to an outdoor production, but not until after the year fifteen hundred when the medieval Middle Ages had come to an end. All citizens were invited to attend and these plays were funded by the church, not the state or community as in ancient Greek or Roman times. Oh, we've run out of time. We'll have to continue medieval festivals next time. Please study your notes regarding how these three festivals—Greek, Rome, and medieval—were similar and different. Pay special attention to their organization, financing, and presentation styles. Class dismissed.

POST TEST LISTENING

Script A:

Librarian (W): Hello, can I help you?

Student (M): Yes, I need a little help doing some research. I'm not sure which catalog I ought to use, or basically, how to get started.

Librarian: OK, so are you looking for a specific resource, or for any resources you can find about a particular topic?

Student: I'm looking for *any* resources I can find. [pause] I'm writing a paper on the reunification of Germany, so anything related to that would be fine.

Librarian: OK. German reunification, that's good. So one of the places you might be able to look is in our specialized area collections, which cover materials related to different geographical areas of the world. The area collections include foreign language materials,

as well as books and journals in English dealing with those regions. So for Germany, you'll want to look in the European collections. I can help you locate the collection online.

Student: [relieved] Great. Now will that catalog show me only materials that are in this library, or materials outside this university as well?

Librarian: The area collections only include books and journals that are in the university system, so if it's at any of our campuses, it'll be in there. It covers all campuses in the university system, not just this campus.

Student: How about outside the university system?

Librarian: For resources outside the university system, you'll want to check the UniCat. The UniCat contains records of materials held in thousands of academic libraries, public libraries, and other specialized libraries around the world. But you can't use it to search our collection—only collections *outside* the university system. And it only provides results for English language resources.

Student: I see. And if I want to get a resource from one of those libraries . . . ? [trailing off]

Librarian: We can usually have them sent here, as long as they're not reserved by a professor.

Student: Great. How long does that take, on average?

Librarian: It depends on where it's coming from. If it's in the country, in most cases, I'd say you could probably get it, hmm, [pause] probably in a couple of weeks. If it's out of the country, who knows? That can take a while.

Student: So then would you say I'm best off searching the European Collection and limiting myself to resources within the university system to start with?

Librarian: Yes. That's what I'd do if I were you.

Student: Great.

Librarian: So as far as searching, either in the European collection or the UniCat, do you need help with search skills? Do you feel OK about looking up materials by subject or author?

Student: [confidently]Yeah, I'm fine with all that.

Librarian: How about limiting your search to only journals or only books. Do you know how to do that?

Student: [confused] Er, [pause] no, I don't know how to do that.

Librarian: [helpfully] OK, well, why don't we just walk on over to that computer over there, and I'll show you a couple of search tricks.

Script B:

Professor (W): Since the middle of the twentieth century, the number of people involved in agricultural production has decreased, even as the country's total population has gotten bigger. So to meet the country's food requirements, farms had to become a lot more productive. Now, farmers use lots of fertilizers and create huge livestock, [clarifying] you know, animal farms. But you see, all those fertilizers have to go somewhere. And so does the waste produced by the animals. Right, uh, the problem is that these things, [pause] these "nutrients" we call them, often get into the water supply—uh, our drinking water. So today, I'd like to go over the causes of this problem, and then, um, some of the effects: the effects of these nutrients on the ecosystem and the effects on farmers and farming practices.

First let's start with some history, and that'll show us the cause of the problem. Where did all of these nutrients come from? I mean, farms in the U.S. used to be small and didn't produce a lot of waste or use a lot of chemical fertilizers. And they grew a variety of crops. But two big changes occurred after World War II. One was specialization. This meant that um, farms just produced a single crop, or maybe just raised livestock. So we have huge fields with just one crop, and uh, we have huge livestock farms. This specialization is one change. Well, these huge farms require huge amounts of chemical fertilizers. Chemical fertilizers became popular because, well, because they were inexpensive, and a lot easier to handle, and store, and, uh, also to spread than fertilizers from animals. And because they've always been so cheap, they were used in large quantities. Now, the animals are still producing wastes, right? [feigning confusion] What do you *do* with all that? There's another cause of the problem.

Then what are the effects of all this? We'll start with effects on the ecosystem. How do these excess nutrients cause damage? Well, when we talk about nutrients getting into the water supply, there are two major nutrients that concern us: nitrogen and phosphorous. These are both essential nutrients. Here's a quick review: Nitrogen and phosphorous help plants grow. Okay, so they're important. But what happens is, when excess nutrients get into ground and surface water, they result in a condition called eutrophication. You see, nutrients help *all* plants grow. Even ones we don't want growing! Take algae in a pond, for instance. The algae can really take over. It can consume all the nutrients and rob the water of its oxygen supply and this, in turn, kills

other forms of plant and marine life. Eutrophication destroys the ecosystem, so humans are, of course, impacted as well. So this is a major effect, it can destroy an ecosystem.

As a result, nutrient management became very important in farming. Long ago, nutrient management was once only concerned with how to optimize economic returns, um, [pause] how to grow a better tomato, for example. But today, nutrient management is about minimizing the negative impact of nutrients on the environment. Used to be just about the money, but not now, not anymore. Do you see what I'm saying? It's a totally different focus. The key thing about nutrient management is this: [raising voice a bit] There's no benefit in applying too much fertilizer to a crop. [resuming normal voice] Applying nutrients in excess of what the crop needs does not necessarily produce increased yields, and in fact, it might actually *reduce* crop yields. And besides, excess nutrients—any nutrients the plants don't use—are just released into the environment anyway. They go deeper into the soil, or they're washed into streams or rivers. And this gets into the water supply, as I said.

So as you can see, farming has changed as a result of all this. Farmers now, as part of their jobs, have to manage all these nutrients. Farmers are now nutrient managers who come up with nutrient management plans. It's a little unusual to think of farmers as managers, but they are. What *is* a nutrient management plan exactly? It's a plan for how the farm intends to handle the excess nutrients from animal waste or fertilizers in order to minimize the impact on the environment. Farmers must achieve a balance, really, between the nutrients coming into the farm with those that are leaving. Now, um, a nutrient management plan includes such things as an inventory of the farm's nutrient resources, its handling and storage procedures for different kinds of fertilizers. And this is all subject to government approval. If the government thinks farmers aren't doing something right, they *can and will* shut them down. But the ultimate goal is supplying plants with the nutrients they need for optimum crop yields while minimizing the release of excess nutrients into the ecosystem.

Listen again to part of the conversation. Then answer the question.

Professor (w): Now, the animals are still producing wastes, right? [feigning confusion] What do you *do* with all that?

Narrator: Why does the professor say this? 

Script C:

Professor (W): Good morning, class. Let's get started now. For the past couple of weeks or so, we've focused on the behind-the-scenes aspect of theater. It's funny, you know, because people always forget that *so* much work goes into putting these things, these, uh, plays together. On top of that, there are so many people involved in the process that some roles are often overlooked, even if they are key components in a production. And that, everyone, is probably the most appropriate introduction I can give for a lecture about *dramaturgy*.

Now, as you can probably guess from my introduction, dramaturgy is an important job. Still, it's a job that's pretty hard to define. I'll be going into some of the functions and duties of a dramaturge a little later in the lecture, but I think that, for now, it might be helpful if I just give you a quick background on this position. So, let's go back to eighteenth-century England, or uh, or rather, eighteenth-century Germany. This was a great time for theater in Europe, and theaters were appearing all over the place. Anyway, in 1767, the directors of the Hamburg National Theater offered playwright and critic Gothold Ephraim Lessing the position of resident playwright. The, uh, playwright, as you might guess, is the person, who, well, writes the plays. Anyway, Lessing turned down the position but, instead, offered to assist the theater by offering his services as a critic. As a critic, Lessing would help pick out plays, critique the productions, and help publish a journal. The position Lessing created soon became a fixture in most German national theaters. And later, much later, by the 1960s, the dramaturge became a common job in English-speaking theaters as well.

OK, so now you have the background of dramaturgy, but I still haven't really talked about exactly what a dramaturge is. The fact is, even if I wanted to give you a clear, precise definition, it's nearly impossible because the purpose and duties of a dramaturge are so varied. So what I'm gonna do instead is sort of outline for you all the *basic* duties of the dramaturge instead of trying to give you a definition. OK, so the work of a dramaturge falls into two basic categories: literary management and production dramaturgy. Before I even start, I want to encourage everybody to ask questions if any of this isn't clear. All right? [pause].

So as I said, there are two types of work, uh, two major types of work that a dramaturge does. Literary and production. I'll explain the literary management aspect of dramaturgy first. The crucial duties that relate to literary management deal with finding new plays and developing them for production. When you consider everything a dramaturge must do, I think it's easier to appreciate their job. Think about it—most theaters receive *hundreds and hundreds* of scripts per year. And that's just part of it. It's the dramaturge's responsibility to oversee the task of reading through all those plays and picking out the ones with *the most potential*. This is not to say that the dramaturge necessarily reads *all* the plays—that would be impossible in the bigger playhouses. But the dramaturge does have an important role in finding new plays to be produced. Once a play has been selected, the dramaturge is also responsible for shaping it into a commercially successful performance. I mean, the play has to make money. This can cause problems, too. You see, the dramaturge might have to change the original script. Of course, the uh, the playwright might not like that. [mocking anger, in a slightly different voice] "Hey, what are you doing, changing my play around?" So as you can see, this can be a tough part of the dramaturge's job, changing the original script into a commercially successful play.

OK? [pause] All right then, let's move on to production dramaturgy. Again, the specific duties of the dramaturge as they relate to production are not clear-cut, but they are mostly related to the actual direction of the play. Like handling the day-to-day management of the play, uh, changing scripts, as I mentioned and oh, suggesting changes in set design. Now, you might be thinking to yourself, "Isn't that a director's job?" Well yes and no. Some directors prefer to do all that themselves, but in other cases, the dramaturge works closely with the director. Why? Well, some directors are just swamped, you know? They're so busy and have so many things going on at once. I think an important distinction between the dramaturge and the director is that, although the dramaturge is involved in all those directing functions, he or she doesn't actually make any decisions—the director does. So how can I put this? Um, the dramaturge might come up with the idea to cut out a scene from the play completely. She or he would then check the idea with the director, saying why the scene should be cut. If the director agrees, then the scene would be eliminated.

Listen again to part of the lecture. Then answer the question.

Professor (W): When you consider everything a dramaturge must do, I think it's easier to appreciate their job. Think about it – most theaters receive *hundreds and hundreds* of scripts per year. It is the dramaturge's responsibility to oversee the task of reading through all those plays and picking out the ones with the most potential. And that's just part of it.

Narrator: What does the professor imply when she says this? 

Professor: When you consider everything a dramaturge must do, I think it's easier to appreciate their job.

Script D:

Professor (M): Good morning, everybody. Today, we're going to continue with our weeklong discussion of desert geography and talk about sand dunes. So first, how do sand dunes, these hills of sand, form? It's pretty simple, actually. You just need two things, basically: wind and sand. Nothing so interesting there, but what *is* interesting is the fact that sand dunes take many different forms. And the forms they take have a lot to do with the direction of the wind. So how—and you might be able to guess from what I've said—but how do you suppose sand dunes are classified?

Student 1 (W): By shape, right?

Professor: That's right. There are several classifications, and we're going to go over three of the major ones here today. Now, you remember that I mentioned the fact that the wind is important, right? Well, not only that, but the *direction* of the wind is important in the formation of sand dunes. And I said *sand* was important. So the amount of sand you have in any given area makes a difference, too. OK, with that information in mind, let's start talking about the various types, shall we? Can anyone give me the name of any of the types of sand dunes? OK, let's see who did the reading. Umm, Melissa?

Student 1: Oh, I knew you were going to call on me! [unsure] I want to say bar . . . bar something . . . [pause] barchan, isn't it?

Professor: Barchan. You got it. OK, so barchans are primarily formed in areas that don't have a large supply of sand. Strong winds will blow the sand downwind and eventually construct the barchan shape.

Student 2 (M): Wait, so what shape are barchan dunes? They look like hills, right?

Professor: Generally, they're crescent shaped. So yeah, crescent-shaped hills. They look sort of like a crescent moon in the evening sky.

Student 1: Those are the ones with the steep leeward side, right?

Professor: [impressed at Melissa's knowledge] Hey, not bad. And you're right. They are steep on the leeward side. The leeward side, by the way, is the side that is *opposite* the

wind. So you have the windward side—that's the side the wind is coming from. And you have the leeward side—that's the opposite side.

Student 1: So do barchans usually form as isolated structures?

Professor: I'm not sure what you mean.

Student 1: Um, so, like, do they appear on their own or do they form in groups?

Professor: Oh, I get what you're asking now. Um, [thinking], generally, the dune itself is formed on its own, but they'll sometimes appear in groups over time. Does that answer your question?

Student 1: Um, yeah, great. Thanks.

Professor: Are we about ready to move on to another type maybe? How about naming another type of dune?

Student 1: What about transverse dunes?

Professor: Very good. Someone knows a thing or two about sand dunes. OK, so unlike barchans, transverse dunes form in areas that have *a lot* of sand. The reason they're called transverse dunes is because their ridges are perpendicular to the prevailing wind. In other words, the ridges and the wind direction are 90 degrees apart.

Student 2: So what do those look like?

Professor: I guess the best way to describe them is that they, well, they look a lot like waves on the ocean. One more thing you'll want to remember about transverse dunes is that they have a steep leeward side just like barchans. [pause] OK, then. Moving right along: There's just one more type I want to make sure to cover, so I'll go ahead and mention it myself: star type dunes. If you ask me, these are spectacular, and their formation is even more interesting. See, instead of being formed by strong downward winds, star dunes achieve that peculiar shape when the convectional uplift of air currents moves the sand. What I mean is, they're formed from upward wind currents, not downward ones, or uh, from . . . from winds that move from side to side.

Student 2: Hold on a minute—I know this is probably really obvious, but what *exactly* do star dunes look like?

Professor: I'm actually glad you asked that because it's not quite as self-explanatory as one would guess. Simply put, the star dune is shaped like a pyramid. Except that several ridges also form and branch out from the highest point. When viewed from *above*, these dunes look sort of like stars, hence the name.

Listen again to part of the lecture. Then answer the question.

Student 2(M): Hold on a minute—I know this is probably really obvious, but what *exactly* do star dunes look like?

Professor (M): I'm actually glad you asked that because it's not quite as self-explanatory as one would guess. Simply put, the star dune is shaped like a pyramid. Except that several ridges also form and branch out from the highest point. When viewed from *above*, these dunes look like stars, hence the name.

Narrator: What can be inferred from the professor's response to the student?