THE INTERACTIVE LEARNING COMPANION

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Preface

As instructors of psychology, we are united by a common goal – to educate students about the theories and methods of psychology. However, most instructors have additional goals that reach beyond the mastery of psychological principles. We may want our students to increase their general academic skills including critical thinking, writing, and oral expression. We may want them to learn about and appreciate diversity. And, most of us want to prepare our students for success in both home and work domains.

The days when a student graduated from college, got a job, and stayed in that job until retirement are long gone. In today's fast-paced, constantly changing world, students can expect to make multiple job and career changes in their lifetime. As college and university instructors, we have an obligation to prepare our students for the ever-changing work world they will be facing. There are several skills that today's students will need to be successful in the marketplace. They will need the ability to work cooperatively with others in diverse settings. They will also need to be able to think critically and creatively, and they will need the skills to become a lifelong learner. Meeting these goals may require that we take a closer look at our traditional teaching methods – many of which do little to address these needs. The purpose of this guide is to help instructors provide their students with the opportunity to work cooperatively and learn from others, and to teach students how to learn, giving them the skills and motivation they need to become critical thinkers and lifelong learners. In addition, the learning process should be fun, exciting, and engaging for students; teaching them that the process of learning itself can be an enjoyable journey. This guide is designed to energize your classroom with unique and exciting interactive learning techniques. The techniques are quite diverse, allowing instructors to present material in a variety of ways, appealing to students with different learning styles, cultural values, and intellectual strengths.

Good teaching requires constant practice and reflection. Updating and modifying our teaching methods may be as important as improving our course content. Whether you are a new instructor or a seasoned veteran looking for fresh ideas, the suggestions presented in this guide can serve as a starting point for your success in the classroom.

WHAT IS INTERACTIVE LEARNING?

In order to understand interactive learning, it is helpful to begin by looking at traditional approaches to education. Only by understanding how we've been educating psychology students over the years, can we truly appreciate the ways in which interactive learning is both different and advantageous in comparison.

Traditional Approaches to Instruction: Passive Learning

Lecture. The most familiar teaching method to both students and instructors is the lecture method. It has been referred to as the *Banking Model* (Freire, 1970), because information is essentially "deposited" into the students. The skull is opened, information is poured in, and the skull is closed back up. It is hoped that the information can then be "withdrawn" at test time. For most of us, our cognitive schemas for college instruction include the image of an auditorium filled with seated students, all facing forward in their chairs, quietly listening to the professor speaking. If you concentrate on this image long enough, you will see students fidgeting in their chairs, yawning periodically, doodling in their notebooks, and displaying a variety of other classic signs of boredom. It is easy to see why this method has been referred to as *passive* learning. Students sit (sometimes apathetically) in their chairs, inactive recipients of large amounts of information. The drawbacks to this method are many. First, lectures appeal primarily to auditory learners, leaving the remaining students with different learning styles at a disadvantage. Second, the human attention span only lasts about 15 minutes or so before beginning to wander (Wankat, 2002). The likelihood that students will be able to stay engaged in an hour long lecture, deeply process the information, and retain the information is very small. Many studies have shown lecture to be one of the least effective methods of instruction when it comes to student enjoyment, retention, and comprehension (e.g. Cherney, 2008; Logowski, 1990).

Group Work. A secondary method that has been used in the traditional college classroom is group work. Students are assigned to groups and work together to complete assignments, projects, research papers, or engage in classroom discussion. Students often select their own team members, and there is rarely individual accountability. Typically one or two students do most of the work for the team, and the other students will "loaf." Traditional group work and group discussions often lead to resentment on the part of students. The instructor assumes that students are working cooperatively and effectively and may not even discover problems until the semester has come to an end. Group discussion usually starts with the instructor asking an open-ended question. Students are then asked to talk it over in groups. The problem is that there is usually unequal participation among the group members, with some students never participating at all. In addition, there is no individual accountability, and therefore low motivation on the part of the student to participate. With the interactive team approach offered in this guide, it's possible to eliminate these common perils of traditional group work.

Technology.   The use of technology in the classroom can range anywhere from the use of a simple video clip to a more sophisticated online assignment. Not all uses of technology involve passive learning. In fact, today, students may interact with material through computer tutorials, online searches, student forums, and even virtual reality. However, much of the way technology has been used in the past has involved passive learning. The use of video clips or audio recordings, and the creation of most power-point presentations all place the student in the passive role of "watcher" or "listener" as opposed to "doer." In the section to come, we'll talk about innovative uses of technology that involve an interactive approach to learning.

Alternative Approaches to Instruction: Learning through Action

If traditional lecture methods are termed "passive" learning, alternative approaches to instruction typically involve "active" learning. Active learning is generally considered to be any technique that gets people to process information. Bonwell and Eison (1991) define active learning as instructional activities involving students in doing things and thinking about what they are doing. The idea behind active learning is that effective learning occurs when students must read, write, discuss, synthesize, evaluate, analyze and problem solve. This can include cooperating with others, writing an assignment, physically participating in a demonstration, drawing, etc. Active learning occurs when students participate in the learning process rather than serving as passive recipients of information. The idea of seeing students as active participants, taking responsibility and sharing in the ownership of their learning has increased in popularity. In fact the terms "student-centered" or "learner-centered" environments heard on many college and university campuses today illustrate this changing emphasis.

Brain-Based Learning. In this approach, research on how the brain learns is applied to instructional methods (Connell, 2005). Brain-based learning may include assessment of students' learning styles, multiple intelligences, information-processing styles, and left-brain/right-brain preferences. Instructors are encouraged to examine their own processing styles as well, and then to construct lessons that intentionally utilize multiple modalities in order to maximize student engagement and comprehension. Although brain-based learning may not be specifically labeled "active learning," the end result is that the use of multiple methods, often simultaneously, almost always requires students to actively process information on a deeper level. In addition, teaching to student's learning styles requires moving away from passive techniques like lecturing, which only appeal to one type of learner.

For more on Brain-Based Learning:
Prigge, D. J. (2002). 20 ways to promote brain-based teaching and learning. *Intervention in School and Clinic*. *37*, 237-41.
Willis, J. (2007). Brain-based teaching strategies for improving students' memory, learning, and test-taking success. *Childhood Education*. *83*(5), p. 310.

Cooperative/Collaborative Learning. Although many active methods are not new and have in fact been studied since the early 1900s, they are still perceived as alternative and outside the traditional lecture format. Methods such as cooperative and collaborative learning refer to the general idea of students working together. Panitz (1997) describes collaborative learning as a philosophy and personal lifestyle, not just a classroom technique. Deemed the "craft of interdependence," collaborative learning involves small consensus groups, long-term projects, and allowing students the opportunity to depend on each other rather than relying exclusively on the instructor. Cooperative learning involves more formal organization, and is tied to specific learning structures. The structures usually involve a series of steps, or a process that helps people interact together to achieve a specific goal or develop an end product.

Students work in pairs or teams and take direction and use materials from their instructor. The goal of this approach is to enhance learning and increase interpersonal skills. Unlike traditional group work, in cooperative learning students depend on each other to complete a task, and social loafing is prevented by requiring individual accountability of student outcomes.

To reap the benefits of cooperative learning, instructors must use caution in creating groups, and should follow several key concepts when structuring cooperative learning activities. Johnson et al. (1991) recommends that five basic elements be incorporated into any cooperative learning structure. These elements distinguish cooperative learning from traditional group assignments and are summarized here.

1. **Positive interdependence.** Make sure that the group members need each other to succeed. This can include an emphasis on being dependent, utilizing joint resources, and dividing labor amongst the team members.

2. **Face-to-face interaction.** Having students interact with each other encourages assistance and support in the learning environment.

3. **Individual Accountability.** Each student should be held personally responsible for their performance. Assigning the same grade for every group member usually leads to social loafing. Students must feel that their performance matters and is tied to their individual grade.

4. **Collaborative Skills.** Students must learn basic skills for group functioning including leadership, communication, conflict resolution, and decision-making.

5. **Group Processing.** Groups should discuss their goals and progress at the end of each session. What positive things happened? What could be improved for tomorrow? By assessing progress groups are more likely to stay on task, and be reminded of collaborative skills.

For more on Cooperative/Collaborative Learning:
Bruffee, K. A. (1993). Collaborative learning: Higher education, interdependence, and the authority of knowledge. Baltimore, MD: John Hopkins University Press.
Johnson, D. W., Johnson, R. T., & Smith, K. A. (1991). Active learning: Cooperation in the college classroom. Edina, MN: Interaction Book Company.
Johnson, D. W., Johnson, R. T., & Smith, K. A. (1991). Cooperative learning: Increasing college faculty instructional productivity. ASHE-ERIC Higher Education Report No. 4, George Washington University.

Critical Thinking. Critical thinking has been defined by Jane Halonen (1994) as the *special kind of thinking skills that promote conscious, purposeful, and active involvement of the thinker with new ideas*. Rather than blindly accepting statements, critical thinking involves taking the time to reflect and evaluate information carefully before coming to conclusions. A good critical thinker is someone who is not limited by their own point of view. They can take the perspective of others, and are open to new ideas. The study of psychology offers a good forum for practicing critical thinking skills. There are many controversial topics, competing theories, and research findings to think about and interpret. Critical thinking is considered an "active" form of learning because the thinker interacts with the material rather than merely accepting information as true.

For more on Critical Thinking:
Dunn, D., Halonen, J. S., & Smith, R. A. (2008). Teaching critical thinking in psychology: A handbook of best practices. Wiley-Blackwell.

Halpern, D. F. (2003). Thought and Knowledge: An Introduction to Critical Thinking (4th Edition). Mahwah, NJ: Lawrence Erlbaum Associates, Inc. Publishers.

Schroyens, W. (2005). Review of Knowledge and Thought: An Introduction to Critical Thinking. *Experimental Psychology*, *52*(2), 163-164.

Service-Based Learning/Experiential Learning. Called the missing between theory and practice, service-based or experiential learning involves structured hands-on learning experiences for students. In this technique, learning is often shifted away from the classroom to some other environment such as the workplace, family, or community. The benefits are twofold -- the student learns by active participation, and the workplace or community benefits from the students' services. Kozar and Marcketti (2008) found that sending students out into the field resulted in greater understanding of course material and facilitated student retention. In an introductory psychology class, you may require that students volunteer some time to community service and write a paper/report on how their experiences can be tied to theories, concepts, and materials covered in class. Ideas for service-based learning are provided below:

volunteer in a childcare or daycare center
volunteer to be a peer advisor
volunteer at a shelter for the homeless
volunteer at a group home for the mentally disabled
volunteer at a hospital for the mentally ill
volunteer at Planned Parenthood
volunteer for the Special Olympics

It's easy to see how these types of experiences could reinforce and expand upon the course material covered in the chapters on intelligence, child development, psychopathology, treatment, health, etc. Setting up service-based learning can be a time consuming process. If you do decide to take on such an endeavor, make sure that you comply with the legal guidelines at your campus. Instructor's who are already utilizing service-based learning on your campus can be a great resource.

For more on Service-Based/Experiential Learning:

Crump, J. R. (2004). Learning by doing: Implementing community service-based learning. Journal of Geography, 101, 144-152.

Kolb, D. A. (1984). Experiential Learning: Experience as the source of learning and development. Englewood Cliffs, NJ: Prentice-Hall.

Technology. Although some uses of technology clearly involve passive learning, there are some exceptions. Today's technology can be a useful vehicle for active learning. The internet has completely changed the face of education. Students can interact with teachers and other students in on-line forums. Students can actively surf the web for information on psychological topics, and can take personality and intelligence tests over the web. With a little creativity, instructors are coming up with lots of innovative uses of technology. In one study, psychology instructors had their students create avatars in an online virtual world as a way to learn psychology content and skills (Baker et al., 2009).   Below are a few examples of other effective uses of technology in the classroom:

1. Have teams of students produce their own video on a psychological topic.
2. Use a commercially available computer software program that allows students to analyze intelligence or personality.
3. Use interactive videodisk technology to allow students to explore the brain.
4. Have students use photographic media to create a collage based on a developmental theme.
5. Use an audience response system, such as remote clickers, to assess student knowledge, or quiz students in a game show format.

For more on using technology in an interactive way:
        Adams, D., Carlson, H., & Hamm, M. (1990). *Cooperative learning and educational media*. Englewood Cliffs, NJ: Educational Technology.
        Holbert, K. E., Karady, G. G. (2009). Strategies, challenges and prospects for active learning in the computer-based classroom. *Transactions of Education*, *52(1),* 31-38.
        Roberts, T. (2004) *Online Collaborative Learning*. Idea Group Publishing: Hershey, PA.
        Strijbos, J., Kirschner, P.A., Martens, R. L. (Eds.) (2004). What we know about CSCL and implementing it in higher education. Kluwer Academic Publishers.

Defining Interactive Learning

The term interactive learning has been used as an umbrella term to describe the collective techniques of cooperative, collaborative, and active learning strategies. However, the definition of interactive learning is not always clearly defined. In this guide, interactive learning encompasses more than cooperative, collaborative, and active learning strategies. Interactive learning includes ANY technique that allows students to interact with the course material, or each other, in a meaningful way. This includes the use of technology, drama, experimentation, service-based learning, critical thinking exercises and any other strategies that achieve this goal. In this guide, the following definition of interactive learning is used:

> *Interactive Learning (IL): A method of active learning in which students interact directly with material through critical thinking, writing, experimentation, working cooperatively with others, and actively processing information.*

Self-Assessment: Where Are You Now?

The following exercise allows you to assess the instructional methods that you currently use in your classroom. Historically, instructors have been taught and encouraged to use lecture as the primary instructional method in their courses. This emphasis has been so strong that when we picture a college classroom it is hard to do so without picturing the professor at the front of the room lecturing to students. Moving away from these traditional ideas, it is possible to see that there are a variety of additional instructional methods that can be used to enhance student learning. Consider the list of teaching methods below. Indicate with a check whether you have ever tried that particular teaching method.

_____Assigned a short classroom activity followed by a cooperative learning discussion (A)

_____Played an audiocassette tape from a radio show (P)

_____Had students pair-off and teach each other about a concept (A)

_____Assigned students to roles in a role playing exercise (A)

_____Arranged for a guest lecturer to speak to your class   (P)

_____ Used demonstrations to illustrate a concept (P)

_____ Had students complete a survey to learn about themselves (A)

_____ Had students engage in a problem solving activity (A)

_____ Assigned small group presentations where each student contributes (A)

_____ Shown a film or videotape (P)

_____ Asked students to stop during a lecture to write an answer to a question (A)

_____ Assigned individual oral presentations (A)

_____ Engaged in a cooperative learning brainstorming activity (A)

_____ Used a doc-cam to display material (P)

_____ Used a game-show format to review material (A)

_____ Sent students outside of the classroom to perform a campus experiment (A)

_____ Used PowerPoint® to present material (P)

_____ Incorporated role playing or drama into the classroom (A)

_____ Had students volunteer in the community for course credit (A)

_____ Used a transparency to display pictures or graphs (P)

_____ Used computer tutorials or programs to illustrate concepts (A)

_____ Created student discussions or online forums (A)

_____ Used a storytelling technique (A)

_____ Had students work through interactive tutorials on CD-ROM or Web (A)

_____ Had students work in cooperative teams on a critical thinking exercise (A)

_____ Had students prepare debates on controversial topics (A)

_____ Lectured to students (P)

A = active method

P = passive method

What do you notice about your responses – do you use primarily passive or active instructional methods? Do you use a variety of methods, or only a few methods? Are you willing to incorporate some new methods into your courses? If so, this guide will provide you with the tools to expand your teaching techniques.

Ten Benefits of Using Interactive Learning

Interactive learning does more than energize the classroom; it helps students improve their academic and social skills, increases attendance, decreases anxiety, and promotes retention of course content. Decades of research have provided us with compelling evidence for using interactive learning strategies, many of which are listed below:

1) IL Improves Academic Skills
In 1993, Johnson and Johnson conducted a meta-analysis summarizing data from over 120 studies comparing cooperative, competitive, and individualistic learning on individual achievement. Cooperative learning was associated with greater individual achievement than either competitive or individualistic methods. These results held true for a variety of tasks including mathematical, verbal, and procedural tasks. In addition to working with others, active learning exercises such as written assignments, hands-on class activities, and other forms of active learning result in significantly higher exam scores (Gier & Kreiner, 2009; Walker et. al., 2008) and student retention of course material (Cherney, 2008). In one study, researchers used different active learning approaches in five different classes. All five designs yielded higher exam performance than the traditional lecture classroom (Freeman et. al., 2007). Even computer based instruction leads to higher mastery of course material when active learning components are added (Klein & Sullivan, 2007).

2) IL Improves Social Interaction
Students who work in cooperative, as opposed to competitive learning paradigms report greater liking of fellow classmates, greater social support, and an increased number of positive relationships among diverse students (Johnson and Johnson, 1992). The researchers point out that most of the 120 research studies they examined had been conducted in real classrooms over extended periods of time. Spanning nine decades, scholars in a variety of different disciplines, working in different settings and countries, have examined students diverse in age, class, nationality, and cultural background with similarly impressive findings. Techniques such as the jigsaw classroom have historically been ed to improved race relations among students (e.g. Williams, 2004).

3) IL Celebrates Diverse Learning Styles
In the last two decades, student-centered learning has gained in popularity. Rather than focusing on the skills and expertise of the instructor, educators are encouraged to consider the learning or processing styles and skills of their students, and to develop teaching techniques that will engage a wider number of learners. The interactive learning structures in this guide are diverse, touching on a variety of skill sets. Some involve physical movement, some involve visual-spatial skills, and others appeal to auditory learners. By infusing your classroom with interactive learning techniques, you will also be appealing to students with different learning styles increasing student engagement and performance.

4) IL Improves Attendance
By allowing students to become actively involved in the learning process, you can stimulate an interest in learning, and thereby increase classroom attendance. Early studies indicated that a classroom in which students interact with one another is likely to increase student attendance (Treisman, 1985).

Other studies have found that introducing even one active learning exercise to a traditional lecture format is associated with an increase in student attendance (e.g., Butler et al., 2001; Freeman et. al., 2007).

5) IL Prepares Students for Employment

In many work environments today, employees are asked to work together in teams. These teams must be able to communicate effectively, come to consensus, and produce end products. The cooperative learning classroom encourages the same skills that will enable students to succeed in today's workforce. When cooperative learning is done correctly, students practice leadership skills, effective communication, problem-solving, and conflict resolution, all of which are critical in the marketplace. In one study, students who had been educated on team processes and completed a semester long research project reported less conflict, less social loafing, and felt more positively about their learning experience (Scott-Ladd & Christopher, 2008).

6) IL Builds Self-esteem

Several studies have indicated that cooperative learning is associated with several indices of mental health. For example, a meta-analysis of 13 studies examining self-esteem indicated that cooperation in the classroom promoted higher self-esteem than competitive or individualistic classroom techniques (Johnson & Johnson, 1993).

7) IL Develops Oral Communication Skills

Many of the interactive learning structures help students develop oral communication skills. Students who are asked to tutor others must learn to communicate clearly to their partner (Neer, 1987). Some of the structures require that students listen to their team members and restate or summarize what they've heard. Finally, students in cooperative learning environments get the opportunity to organize their teams' ideas and present them to the larger class. Another consequence of having students work together in teams is that they speak to each other using discipline-specific language, which helps to reinforce the new terminology they're learning. Students can also expand their vocabulary by having structured opportunities to practice new terminology with their teams (Tannenberg, 1995).

8) IL Encourages Critical Thinking Skills

Meta-analysis data of over 120 studies comparing cooperative, competitive, and individualistic learning on achievement, has indicated that cooperative learning structures are more likely to encourage critical thinking skills. For instance, cooperative learning promotes greater use of cognitive processes such as reconceptualization, metacognition, higher-level reasoning, and cognitive elaboration. Several studies have shown that the quality of reasoning strategies was higher in cooperative than competitive environments (Gabbert, Johnson, & Johnson, 1986).

9) IL Reduces Classroom Anxiety and Test Anxiety

Several researchers have found that classroom anxiety is significantly reduced in cooperative learning classrooms (Kessler, Price, & Wortman, 1985). In traditional classrooms, the instructor calls on individual students, which can potentially produce great embarrassment or anxiety. In cooperative learning classrooms, individual responses represent the work of the team, so no single individual is likely to feel embarrassed by a wrong response. Mistakes are less likely to occur anyway in the cooperative learning classroom, because teams have a chance to review their work before sharing with the class (Slavin & Karweit, 1981).

10) IL Improves Retention of Course Material

Several studies have examined student retention of course material based on instructional methods. In a classic experiment conducted by the National Training Laboratories in Bethel, Maine, retention of course material was measured and broken down by instructional method. Active learning techniques (discussing, doing, and teaching) led to greater retention of material than passive learning

techniques (lecture, reading, films, demonstrations). Sadly, when students leave the classroom they are LEAST likely to remember the information presented through lectures.

The Learning Pyramid

Lecture 5%

Reading 10%

Audio Visual 20%

Demonstration 30%

Discussion Group 50%

Practice By Doing 75%

Teaching Others 90%

Average Learning Retention Rates

Adapted from NTL Institute for Applied Behavioral Science
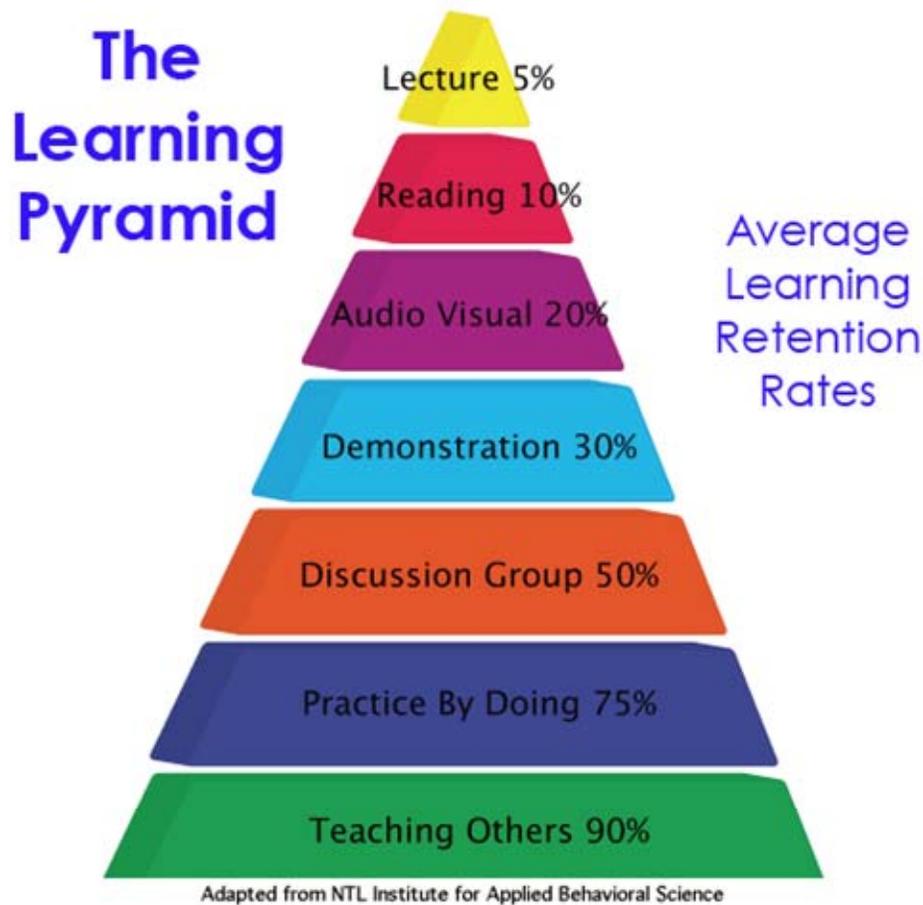
In a similar study, Lagowski (1990) examined retention rates of undergraduate students and found that they retain:

    10% of what they read
    26% of what they hear
    30% of what they see
    50% of what they see and hear
    70% of what they say
    90% of what they say, as they do something

        Taken together, these findings suggest that active approaches to learning are far superior to passive forms when it comes to retention of course material. These studies also highlight the positive benefits of engaging students in multiple modalities, for example saying AND doing something.

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HOW TO USE INTERACTIVE LEARNING
IN THE PSYCHOLOGY CLASSROOM

Your Bag of Tricks: 50 Interactive Learning Structures

The following section provides you with information on 50 interactive learning structures. You may be wondering why there are so many learning structures presented in this guide. The answer is that the structures serve different functions. There is no perfect interactive learning structure. No single structure can meet all of your classroom needs. Some structures are useful for cooperative learning teams, some structures are best for large classrooms, and other structures are designed for certain types of information. In building an interactive learning environment, it is best to have a variety of ideas at your disposal. The following 50 interactive learning structures can also serve as a springboard for the development of your own techniques. Students typically enjoy a variety of learning experiences throughout the semester, so feel free to sample from this diverse list. If you are feeling overwhelmed, read through the list and select one or two learning structures to try this semester. As you feel more comfortable, you can begin to expand. For easy reference, each learning structure has been tagged with a code to help instructors identify which learning structures are most appropriate for use with individuals, teams, and/or large classrooms.

> I = Individual. These structures involve some form of active participation or processing of information. These structures involve individual or whole class participation rather than a team format.
>
> T = Team. These cooperative/collaborative learning structures assume that students are divided into teams, typically pairs or quads.
>
> LC = Large Class. These structures are appropriate for large class sizes and typically do not require rearrangement of furniture. Some may involve a partner, but it is assumed that the student will be able to interact with the person seated next to them. Keep in mind that almost all of the techniques in this guide can be modified for use with large classes. However, the structures identified with LC will work without any modification.

Interactive Learning Structures: Quick Reference.

Activities for Individuals	Skill Emphasis
Corners	Critical Thinking, Discussion
Focused Listing	Literacy, Critical Thinking
Four Questions	Literacy, Assessment
Gallery Walk	Literacy, Social Interaction, Oral Communication
Inside/Outside Circles	Teaching Others
Line-ups	Critical Thinking
Mix-Pair-Freeze	Social Interaction
Multi-Voting or Spend a Buck	Critical Thinking
One-Minute Paper	Literacy
Poker-Faced Participation	Oral Communication
Ticket-In, Ticket-Out	Literacy
Valley of Values	Self-Exploration, Oral Communication
Value Line	Self-Exploration, Oral Communication

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Value Signs	Self-Exploration, Oral Communication
What's On My Back?	Oral Communication, Teaching Others
Write-Pair-Share	Literacy, Oral Communication

Team-Based Activities	**Skill Emphasis**
Surround the Expert	Oral Communication
Classroom Baseball	Oral Communication
Co-op Cards	Teaching Others
Dyadic Essay Confrontations	Literacy, Critical Thinking
Expert Jigsaw	Discussion, Collaboration
Fact or Fiction	Critical Thinking, Oral Communication
Formulate-Share-Listing-Create	Collaboration, Discussion
Group Definitions	Collaboration, Discussion
Group Discussion w/Talking Chips	Oral Communication
Group Investigation	Research, Collaboration
Guided Reciprocal Peer Questioning	Literacy, Critical Thinking
Jeopardy Review	Oral Communication
Pairs Check	Teaching Others
Partner Jigsaw	Teaching Others
Role Playing	Oral Communication
RoundTable/RoundRobin	Critical Thinking, Oral Communication
Semantic Webbing	Critical Thinking
Simple Jigsaw	Teaching Others
Structured Controversy	Critical Thinking
Teacher-Student Review	Teaching Others
Team Consensus	Collaboration
Team Question and Answer	Collaboration, Teaching Others
Two-Stay/Two Stray	Oral Communication
What We Know	Collaboration

Activities for Large Classes	*Skill Emphasis*
Co-op Cards	Teaching Others
Dyadic Essay Confrontations	Literacy, Critical Thinking
Focused Listing	Literacy, Critical Thinking
One-Minute Paper	Literacy
Structured Controversy	Critical Thinking
Teacher-Student Review	Teaching Others
What We Know	
Think-Pair-Share/Square	Oral Communication
Three-Minute Review	Teaching Others, Oral Communication
Three-Step Interview	Teaching Others, Oral Communication
Ticket-In, Ticket-Out	Literacy
Value Signs	Self-Exploration, Oral Communication
Write-Pair-Share	Literacy, Oral Communication

Activities that Are Helpful for Exam Preparation/Review
Co-op Cards
Classroom Baseball
Fact or Fiction?
Inside-Outside Circles
Jeopardy
Mix-Pair-Freeze
Musical Chairs
Password
Teacher-Student Review
Team Question and Answer

Visible Quiz
What's On My back?
Who Wants to Be a Millionaire?

Activities that Are Good for Discussing Controversial Topics
Corners
Structured Controversy
Value of Values
Value Line
Value Signs

Activities that Are Good for Brainstorming
Focused Listing
Round Table/Round Robin
Semantic Webbing
What We Know

1: Classroom Baseball   T

Kiracofe (1996) outlines a method for review that is similar to the game of baseball.   Props are used to create a baseball game setting -- textbooks serve as bases, students are encouraged to bring bats, wear baseball caps, and eat peanuts. Prior to the game the instructor comes up with a list of questions and assigns them values such as singles, doubles, triples, and homeruns. The predetermined review questions correspond to specific numbered pieces of paper that are placed in a large bowl. A coin toss determines the starting team. The first student "up to bat" selects a number from the bowl and answers the question. If answered correctly, the player proceeds to the appropriate base. If incorrect, the team is given an out and play continues to the next batter. Select a student volunteer to be the scorekeeper, keeping track of runs and innings. The game ends after a predetermined number of innings, or after a set amount of time. Not only do students enjoy this activity, Kiracofe claims that on average, students show an increase in test scores with this activity.

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2: Co-op Cards   T/LC

This flashcard activity can be useful for concept review at the end of a chapter, or in reviewing and studying for an exam. Students create flashcards on assigned topics before coming to class. On the front side of the card is a question, and on the back side is the correct answer. Students partner up, with one student designated as the "teacher" and the other student as the "learner." The teacher starts by showing each card and reading aloud both sides to the learner. The second time through the cards, the teacher shows only the question side of the card and asks the learner for an answer. If the learner states the correct answer, the teacher hands the learner the card. If the learner gives an incorrect answer, the teacher gives some helpful information and retains the card. During the final step the teacher reads the question without showing the card.

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3: Corners

I

This is an active learning structure that is useful for discussing concepts with multiple perspectives. The teacher begins by raising a question that has multiple answers. For example, "What is the cause of aggression?" After several answers are generated by the class, students are encouraged to join a group with others who share their view.   These groups meet in different "corners" of the room. After some discussion, groups can formulate answers to questions and can share or debate with the class.

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4: Dyadic Essay Confrontations

T/LC

The dyadic essay confrontation technique was developed by Sherman (1991). The instructor begins by assigning readings to the students, either a chapter of the text, or an article. Students must complete the following four steps outside of class time:

1. Students read and reflect on the assigned material.
2. Students form an essay question.
3. Students prepare a model answer to their own question.
4. Students bring a copy of their essay questions and their model response on separate pages.

During class time, students pair with another student and exchange essay questions. Each student writes their answer to the essay question they received from their partner. Pairs discuss their answers with the model responses looking for similarities and differences. DEC can be used as a method to review for exams as well.

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5: Expert Jigsaw

T

This is a modification of the simple jigsaw with an added element (Aronson & Goode, 1980). Each member of the group is assigned a topic. Again, let's say that each member is asked to become an expert on a different lobe of the brain (frontal, temporal, occipital, parietal). In class, team members who have been assigned the same lobe meet in "expert" groups to discuss how they will present or teach their information to their teammates. Finally, members return to their original teams and teach what they've learned.

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6: Fact or Fiction?

T

Kagan (1992) describes this technique as an icebreaker activity in which students state three facts about themselves. Two are true, and one is false. The other team members each get to ask one question. Then, they try to guess which statement is false. The game continues until each team member has had a chance to give three statements. This technique can also be used as an exam review technique. Team member #1 states three facts about a psychological concept, theory, or key figure. Two are true, one is false. For example "1) Freud used psychoanalysis extensively, 2) Freud developed the theory of imprinting, and 3)

Freud believes behavior is driven by unconscious motivations." Team members try to guess which statement is false.

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7: Focused Listing   I/LC

Focused listing is a good technique for brainstorming descriptions or definitions of concepts. Students are asked to generate 5-7 words or phrases on a specified topic. Once students have completed their lists, they can pair with other students to combine lists, and/or the lists can be used to facilitate group discussion. With a large class, instructors may call on a handful of students to share their lists and generate discussion.

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8: Formulate-Share-Listen-Create   T/LC

A modification of the think-pair-share, this technique has an added element of cooperatively creating a new answer (Johnson, Johnson, & Smith, 1991). Students begin by formulating an answer individually. Students share their answer with a partner, listening carefully. Then, the pairs work on creating a new answer through discussion.

> FORMULATE – students formulate an answer individually
> SHARE – students share their answer with a partner
> LISTEN – partner's listen carefully
> CREATE – the pairs create a new answer to the question

Return to Interactive Learning Structures: Quick Reference

9: Four-Questions   I

Four-Questions is a reflective learning technique that allows students to process information more deeply. Students take a few moments to respond to the following four questions after exposure to new material:

1. What did you learn?
2. Why is it important?
3. How does this material relate to your personal life?
4. Do you have any new questions about this material?

Beth Dietz-Uhler and Jason Lanter (2009) found that quiz performance was better for students who did the four questions exercise before taking the quiz, than for students who completed the exercise after the quiz.

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10: Gallery Walk   I/T

The gallery walk is a way to graphically display outlines, concept maps, brainstorming, or any other written product. Poster paper or butcher paper is recommended. After groups have completed a written assignment, for example "Brainstorm with your team and come up with a definition of intelligence." Students can then tape their poster to the wall. One team member can stand by the poster as the designated spokesperson. The other students move around the room reading other team responses and asking questions of the spokesperson. The gallery walk technique can be modified and used in a variety of ways. Individual term papers, portfolios, and poster sessions can all be presented in this format. The important element is to allow students to interact and field questions from their fellow students.

11: Group Definitions   T

This technique is useful for discussions of topics that may be difficult to define. The instructor begins by providing a psychological concept. For example, the instructor may use "Aggression." Each student then writes an individual definition of the concept. Team members compare their definitions. Then the team creates a new definition of the word that includes all of the elements mentioned in the individual definitions. Teams then share their groups' definition with the class.

12: Group Discussion with Talking Chips   T

This technique is useful when you want to manage or structure the exchange of information. Each member of the team needs a talking chip (e.g., a pen, a pencil, or a coin). During discussion, a team member may only share after he/she has placed their talking chip on the table. They may not share again until all team members have taken a turn and placed their chips on the table. When everyone has shared (all talking chips are on the table), the members retrieve their chips and begin again.

13: Group Investigation   T

This technique created by Sharan and Sharan (1992) can be used as a semester-long project. The instructor begins by selecting topic areas and creating teams. It is best if the instructor gives specific roles/instructions to individual team members to ensure that everyone is doing an equitable amount of work. Teams carry out their investigation of the topic by research or some method of data collection. Teams meet in class to summarize their findings and prepare a report. Teams present their reports to the class, and the class evaluates the projects and the team process.

    Step One: Identify the topic and organize the groups.
    Step Two: Plan the learning task.
    Step Three: Carry out the investigation.
    Step Four: Summarize and prepare the final report.
    Step Five: Present the report.
    Step Six: Evaluate the project and the process.

14: Guided Reciprocal Peer Questioning   **T**

King (1995) has developed a series of question stems that require students to analyze and think critically. Students begin by reading an article or chapter related to course content. Using King's question stems, students prepare their own set of questions. In groups, students may pose questions to others for sharing/discussing. Other learning structures can be used such as think-pair-share or think-pair-square.

- Explain why ____. (Explain how ____.)
- What would happen if ____?
- What is the nature of ____?
- What are the strengths and weaknesses of ____?
- What is the difference between ___ and ___?
- Why is ____ happening?
- What is a new example of ____?
- How could ____ be used to ____?
- What are the implications of ____?
- Do you agree or disagree with this statement: ____?
- What evidence is there to support your answer?
- What is ____ analogous to?
- How does ___ effect ____?
- How does ___ tie in with what we learned before?
- Why is ____ important?
- How are ____ and ____ similar?
- How does ____ apply to everyday life?
- What is a counter-argument for ____?
- What is the best ____, and why?
- What is the solution to the problem of ____?
- Compare ____ and ____ with regard to.
- What do you think causes ____? Why?
- What does ____ mean?
- What is another way to look at ____?
- Describe ____ in your own words.
- Summarize ____ in your own words.

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15: Inside/Outside Circles   I

This technique is especially useful as an exam review structure. Students begin by becoming the "expert" on the answer to a question. Students in the class number off (e.g., 1, 2, 3, 4, etc.). The even numbered students form a circle facing outward. These students are called the "inner circle." Odd numbered students form a circle around the inner circle facing inward, so each person in the outer circle is facing a student from the inner circle. The students take turns quizzing each other with their questions. Since they are experts on the answer to their question, they can help their partner and teach them the correct response. Each time the instructor says "rotate," the outer circle moves one space clockwise, so now each person is facing a new person to quiz. The rotation continues until each student in the outer circle has met with each student in the inner circle.

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16: Jeopardy Review   T

Modeled after the popular television show, the "jeopardy" review utilizes a game show format to help students review course material. You can either go low-tech and write jeopardy categories on the board or on an overhead transparency, or you can use PowerPoints®. There are a few websites that have a jeopardy template that you can use to fill with your own questions (see below). If you create your own board, you will need to come up with several topic categories (e.g., the peripheral nervous system, the brainstem, parts of the neuron, etc.) and questions varying in degree of difficulty. Students are divided into teams, usually by seating rows. Using Transparency Master IA and transparency markers, you can easily create a jeopardy game board. Write-in topics across the top to represent six categories of study. Play begins by a player from team #1 selecting a topic and a monetary amount. For example, "I'll take the brainstem for 20." You then read a moderately easy review statement/question that you've prepared that deals with the brainstem. For example, "The part of the brainstem that plays a role in attention and arousal." Any student from any team may respond with an answer, i.e., "What is the reticular formation?" Call on the first raised hand. If the answering player is correct, their team receives the 20 points, if incorrect, they lose 20 points. You can keep track of team scores on the board. After the brainstem question for 20 points has been answered, cover that square on the transparency to indicate that it is no longer an available option. Play continues until every square on the board is covered. Similar to the television show, you may also want to hold a final round of jeopardy. After final scores are tallied, prepare a rather difficult question for the teams to answer. Give the teams several minutes to think about their answer, write it down, and wager a sum of their earnings. Teams read their responses aloud to the class along with their wagers. You may choose to give the winning team extra credit points, or a small prize such as candy or pens, however most students enjoy the activity even when there is no reward for winning.
PowerPoint® templates for classroom jeopardy can be found at:
http://teach.fcps.net/trt10/PowerPoint®.htm

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17: Line-ups   I

The instructor asks students a question with an answer that can be ordered (e.g. numerically or alphabetically). Students order themselves and find their exact place in line. The instructor can ask students to share their answers to determine that they're in the correct order. Line-ups can be useful for

introducing statistics including basic concepts of mean, median, and mode, as well as discussions of distributions.

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18: Mix-Pair-Freeze   I

Each student is given a question, perhaps a practice test question. Students move about the room, question in hand, until the instructor signals them to stop (could be music, flashing lights, etc.). The students freeze where they are and quiz the student closest to them. The process is repeated until for either a finite amount of time, or until students have answered a set number of questions.

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19: Multivoting or Spend a Buck   I

This activity by Kagan (1992) can be useful for evaluating ideas. For example, an instructor may want to ask students to generate ideas on how to create a culture fair intelligence test. Students brainstorm individually and write their ideas on scraps of paper. Each student says their ideas aloud as they place each one on the center of the table. Each student then gets four votes. Small sticky dots work very well. Students can put from one to four dots on any idea, giving them the option of voting for several ideas, or putting all of their votes on a single idea. The idea with the most dots or votes wins. This idea is shared with the class.

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20: Musical Chairs   I

This exercise is based on the classic children's party game *musical chairs*. First, students take out a piece of paper and generate a practice test question. On one side of the paper they write the question, and on the other side they write the answer. They have essentially created a large flashcard. The paper is placed question side up on their desk. The activity begins when the instructor plays music. Students move around the room until the music stops, at which time students sit at the desk closest to them. Students take a moment to quiz themselves with the flashcard. The music starts again and the process is repeated for a predetermined amount of time.

Return to Interactive Learning Structures: Quick Reference

21: One-Minute Paper   I/LC

Like the ticket-in/ticket-out technique, the one-minute paper is a simple, short writing assignment. Students are asked, at any point in the class period to take one-minute to write on a topic. It could be used for brainstorming (e.g., Name as many altered states of consciousness as possible.), reflection (e.g., What is one thing that you learned today that could be useful in your everyday life?) or assessment (e.g., What concept did you have the most trouble understanding?) One minute papers encourage students to process information at a deeper level. They can also be used in conjunction with a variety of other techniques such as write-pair-share, which involves pairing or sharing the content of their paper with others.

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22: Pairs Check   T

This technique by Kagan (1992) assumes standard four member teams. The instructor gives several problems. For example, the instructor might ask students to calculate the IQ of someone with a mental age of 5, and a chronological age of 7. Teams divide into A-B pairs. The A's compute the problem while the B's coach. Then B's do the problem while the A's coach. Pairs return to their team where they check answers with the other pair.

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23: Partner Jigsaw   T

This is a modification of the original jigsaw technique using partners rather than quads. The instructor begins by assigning two topics to the class. Within teams, each set of partners is assigned one of the two topics. Students with the same topic consult with experts from other teams. The teams reunite and the partners present and tutor.

Return to Interactive Learning Structures: Quick Reference

24: Password   I

Another game-show style review method is played similar to a combination of charades and password. To play the game you will need to fill a large bowl with folded pieces of paper containing the names of important concepts that will be covered on the exam. You may either generate these terms yourself prior to class, or you can include the generation of items as part of the days activities. If you choose the latter, start class by passing out several blank slips of paper to each student. Have them write down the name of a person, theory, or concept from one of the chapters that will be covered on the exam. They should fold the slips and toss them into the community bowl. The class is then divided into teams. This exercise works best with 3-4 teams, so the number of students on each team will depend on your class size. The starting team selects one student to give the clues. The clue-giver should stand close to the bowl of concepts and face their group. When the instructor signals, the clue-giver starts by selecting a term from the bowl. The object of the game is for the clue-giver to get their team to guess the concept on the paper without saying the written word. They may give other clues, they may even use physical actions, but they cannot say the term (see example below). No other teams may guess except the clue-giver's team. When the team has correctly guessed the term, the clue-giver reaches into the bowl and selects a second item. Play continues until one minute has passed. At that time, the number of correctly guessed responses are recorded and the play is moved to the next team. Students are not allowed to "pass" on a term. If they don't know the term they must try to use other clues that will help the team to guess the correct answer.

> Sample Term: Freud
> Sample Clues: He's a Psychologist.
> > He studied the unconscious.
> > He's the father of psychoanalysis.
> > He liked to analyze dreams.

The team with the most points after a determined number of rounds is the winner!

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25: Poker-Faced Participation   I

This is a learning structure adapted from the corporate world by Newstrom and Scannell (1998). The purpose of the activity is to encourage and stimulate participation in group discussions. You will need a deck of playing cards (or several decks if you have a large class) for this activity. Every time a student makes a meaningful contribution to the discussion, the instructor gives them a card. At the end of the class period, students are given the opportunity to make the best poker hand they can using the cards they earned. Students may need to be told the winning order of poker hands (royal flush, straight flush, four of a kind, full house, flush, straight, three of a kind, two pair, one pair). You can reward the winner with a prize or extra credit points.

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26: Role Playing   T/LC

Role playing can be an effective technique for students to practice material from specific perspectives. For example, you could assign each member of a quad team to a different personality theory (e.g. Freud, Jung, Cattell, Rogers). Give students time to research their assigned psychologist. Teams can then engage in a role-playing exercise where the instructor provides a list of key questions (e.g., Where does personality stem from? How should personality be measured?) Students answer the questions as if they were the assigned psychologist. There are several modifications that can be made for large classes. One option is to assign each group to a topic, such as a personality theorist. Groups then send a representative to the front of the room where the class observes a role playing exercise with group representatives from the whole class. Or, the instructor may ask students to partner with the person next to them to engage in a role playing exercise.

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27: Roll the Dice   T

Students either number off in their team, or use existing numbers that have been assigned to them for the semester. The instructor poses a question to the class. The team confers and discusses the question. The instructor then rolls a dice. Let's say the instructor rolls a "4." All the number 4s from each team are called on to share their answer with the class.

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28: Roundtable/Roundrobin   T

This is a brainstorming technique in which teams explore a topic. The advantage to this method of brainstorming is that common problems in group brainstorming such as dominance by one person or lack of participation can be avoided. The instructor provides a question or topic for brainstorming. The first student says an answer aloud, writes it down and passes it to the next student. The next student does the same thing. The process continues until time has run out (2-5 minutes is an optimal amount of time for many topics), or until team members can no longer generate responses. Students are allowed to "pass" one round, and may opt to contribute during the next round. Roundtable methods typically involve written responses, while roundrobin methods use oral communication only.

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29: Semantic Webbing/Affinity Diagrams   T

There are several variations of this cooperative technique used for brainstorming and organizing ideas, that may be called semantic webbing (Bromley, 1991), affinity diagrams, or concept maps. The instructor poses a question or a topic to the class, and gives students 3-4 minutes to brainstorm individually, recording their responses on scraps of paper or sticky notes. Next, students read their answers aloud and stick their notes to the table. Third, team member silently categorize the ideas. Finally, teams discuss names for the categories.   A variation of this technique involves providing each team with an idea or concept. Each quad member then has an opportunity to write down a related fact or concept, or a question. Teams create a web of questions that can be used to begin a classroom discussion.

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30: Send/Pass a Problem   T

Teams begin by generating a question or problem. These questions/problems can also be provided by the instructor. The problem should be listed on one side of a sheet with the correct answer listed on the back. The problems are passed to another team. The new team answers the question and if they disagree with the answer created by the first team, they can add their comments to the back. This exercise can be used to review for an exam. As a variation, open-ended or controversial questions can be used to begin a debate or discussion. Problems can be rotated through all teams in the room or just one other team depending on available time and class size.

Return to Interactive Learning Structures: Quick Reference

31: Simple Jigsaw   T

In the simple jigsaw technique (Aronson & Goode, 1980), the instructor divides an assignment into four parts. For example, the instructor may assign each team member to a separate lobe of the brain – frontal, temporal, occipital, parietal. Each student is responsible for learning and teaching their lobe of the brain to their teammates. Instructors can randomly call on students to answer questions about the lobes of the brain.

Return to Interactive Learning Structures: Quick Reference

32: Structured Controversy   T/LC

The structured controversy technique (Johnson et. al. 1991) is useful for getting students to think critically and to learn to view things from multiple perspectives. The instructor provides the class with a controversial issue. The A's are assigned one perspective, the B's are assigned the opposite position. Students are given several minutes to plan their argument. A's partner with B's and present their arguments. Partners have a chance to discuss the issue. Then, the partners switch roles, taking the opposite position, and must now prepare a new set of arguments. Partners share again, arriving at a consensus that can be shared with the class.

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33: Surround the Expert   T

The teacher begins by polling the class to see which students have special knowledge or information to share. For example, following an exam, the teacher could ask the 10 students with the highest test grades

(the experts) to stand up and spread out in the room. The rest of the students are asked to choose an "expert" and surround them, making sure that teammates spread out and each go to a different expert. The experts then share what they know while the classmates listen, ask questions, and take notes. In this case, the experts could share what methods they used to study for the test. Students then return to their cooperative learning teams and share what they've learned with their teammates. Each student has gone to a different expert, so this exercise allows them to compare notes and discuss similarities and differences.

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34: Teacher-Student Review   T/LC

This review style is based on the principle that the best way to learn something is to teach someone else about it. This review technique is simple and can be used in any class size and/or configuration.   The technique requires that students partner-up with a fellow student. Assign one student the role of teacher, and the other student the role of learner. The teacher's job is to teach a concept to the learner. Allow teachers to use their notes and textbooks, and you may consider giving the teachers a minute of "prep" time before they teach their learner. Encourage learners to ask the teachers questions, and not to move on to the next topic until they understand the concept taught to them. You can provide topics by either listing concepts on a board or PowerPoint®, or having students work through a review sheet. Teachers and learners should alternate roles after each concept for balance.

Return to Interactive Learning Structures: Quick Reference

35: Team Consensus   T

Each team member shares information and listens while other team members are sharing. After the information is presented, the team members try to reach a consensus by determining what their answers have in common. Teams share their answers with the class.

Return to Interactive Learning Structures: Quick Reference

36: Team Question and Answer   T

This is a cooperative structure used to help students review for an exam. Students review for the exam in their teams either using prepared questions or by generating their own questions. Students may only ask the teacher or class a question when no one on their team knows the answer, or when the team members disagree on the answer. Additional steps or rules may be added such as: teams must consult with a neighboring team before asking the instructor.

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37: Think – Pair – Share   T/LC

In this cooperative learning technique by Lyman (1992), the instructor poses a question to the class. Students begin by taking a few minutes to think about the question. One to two minutes is optimal. Second, students pair up with a partner and share their responses. Finally, partners share with the whole class. In a large classroom the instructor may call on two or three students to share their answers.

THINK – students think about the answer to a question
PAIR - students share their answer with a partner
SHARE – students share with the class

38: Think – Pair – Square   T

The think-pair-square technique is a modification of think-pair-share that involves an additional step (Lyman, 1992). After students have thought about a question, and shared with a partner, the partners then combine with a new pair for further discussion. This technique can be used to introduce new topics, to summarize key points following a lecture, to stimulate critical thinking about controversial topics, or to check students' understanding of a topic.

THINK – students think about the answer to a question
PAIR – students share their answer with a partner
SQUARE – partners combine with a new pair and share

39: Three-Minute Review   T

The three-minute review (Kagan, 1990) activity can be used at any time during the lecture and is a quick and easy method of reviewing what has just been covered in an activity. First, teams review what they have shared. Second, they ask each other questions to clarify. And third, students share answers. Three minutes are allotted for this review. Afterward the instructor can ask teams to share questions that have not been answered by their team discussions.

40: Three-Step Interview   T

This cooperative activity requires four member teams divided into two A's and two B's. In the first step the A's interview the B's. The interview could consist of asking review questions for an upcoming exam or quizzing someone on their knowledge of the assigned reading. In step two, the B's interview the A's. Then, the pairs reunite and share their responses with the team.

41: Ticket-In, Ticket-Out   I/LC

"Ticket-ins" and "ticket-outs" refer to short assignments that are either due at the beginning of class, therefore a "ticket" to get into the classroom, or may be handed in at the end of class, a "ticket" to get out of the class. Instructors often assign tickets as a way to encourage critical thinking, by asking students to consider controversial issues in psychology, or to apply what they've learned to their everyday life experiences. Although this active learning technique is not inherently cooperative, the tickets can be used as a starting point for a variety of cooperative paradigms. For example, after collecting ticket-in assignments, students may be asked to do a pair-share technique.

42: Two Stay/Two Stray   T

This cooperative technique is useful for reviewing or sharing class projects or assignments (Kagan, 1992). After a team of four members completes a project, two students on the team move to another team to review their project/assignment. The other two students stay behind and share their project with two visitors (a pair from another team). When the two who strayed return to their original team they share what they've learned on their visit to the other team.

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43: Valley of Values   I

This is a variation of the value line technique. It is used to introduce or discuss controversial topics. One side of the room is designated as "agree," and the other side "disagree." The center of the room is designated as the "valley." The instructor begins by reading a controversial statement. Students who agree move to the "agree" side and students who disagree move to the "disagree" side. Students who can't decide move to the "valley." Arguments are heard from both the agree and disagree sides of the room. After hearing compelling arguments from both sides, students in the valley must make a decision and move to one side of the room.

Return to Interactive Learning Structures: Quick Reference

44: Value Line   I

This active learning technique is used to explain or discuss controversial topics. The instructor begins by providing a controversial statement. One end of the room is designated as the "agree" side and the opposite end of the room is designated as "disagree." Students line up according to where they stand on an issue. The instructor may then ask students to explain why they chose to stand where they are.

Return to Interactive Learning Structures: Quick Reference

45: Value Signs   I/LC

This is a modification of the valley of values activity that is useful for large classrooms. Not all classrooms have the physical space for students to get up and walk around. In this active learning exercise, students begin by writing "agree" on one side of a sheet of notebook paper and "disagree" on the other side. The instructor reads a controversial statement. For example "standardized testing is a useful tool in our educational system." Students then hold their "sign" up indicating their position on the issue. The instructor can then call on students to defend their position. After hearing arguments from both sides, the instructor can conduct a re-vote, allowing students the opportunity to change their position.

Return to Interactive Learning Structures: Quick Reference

46: Visible Quiz   I/T/LC

The instructor begins by reading a quiz question to the class. For example, "True or False: Wilhelm Wundt is the father of psychology." The questions can use either a multiple choice or true-false format. Students work in teams of four. Each team has a set of cards (preferably in different colors) labeled A, B, C, D, True, False. Students discuss the answer and then at a given signal, each team holds up their answer. The instructor can scan the room for accuracy. The instructor can either use the information to go into a mini-lecture, or can call on groups to defend their answer. This is a good exercise for both

students and instructors to assess how well students have mastered material, and whether there are areas where the whole class is struggling. This exercise can be modified for individuals and/or large class formats by having each student answer independently with their own set of cards, as opposed to teams.

47: What We Know   T

In this exercise, teams are presented with a sheet of paper divided into three columns. Teams are given a chance to brainstorm to come up with what they already know about a given topic. Then they generate questions they would like to have answered. The instructor may want to use this information as an aid in designing the lecture material for that section of the course. After the lecture the team gets together to discuss what they learned. If the instructor is teaching an upper division psychology course, they may want to use this technique to determine what knowledge the students have on a particular topic when they enter the course.

What We Know	What We Want to Know	What We Learned
A variety of factors influence intelligence.	How much do heredity and environment affect intelligence?	Research studies on the effects of heredity and environment.

48: What's On My Back?   I

This exercise begins when the instructor tapes a psychological concept to the back of each student, without the student seeing what it is. For example, each student could have the name of a different psychological disorder on their back (or the name of a psychologist, or the name of a psychological perspective, etc.). Students then wander around the room mingling with other students and asking them questions in an attempt to figure out what's on their back. Questions must be able to be answered with *yes* or *no*. The student might ask things like "Do I experience repetitive thoughts?" "Do I have out of body experiences?" or "Do I have more than one person sharing my body?" Once students have guessed the disorder on their back, they can remove the slip of paper. However, they still continue to answer questions for the other students. The activity ends when everyone has an empty back.

49: Who Wants to Be a Millionaire?   T

The popular game show *Who Wants to Be a Millionaire?* can be reproduced in the classroom for an active way to review material.   Questions can either be prepared in advance by the instructor, or each student can be required to contribute a question to the box.   The class is divided into teams. You may also want to write several options on the board or on a PowerPoint® such as: Pass, ask a friend on their team, or ask the whole class. Play begins when the first player of a team comes to the front of the room and draws a question. If they don't know the answer, they may choose an option, but once an option is chosen it can't be used by the team again. The game is over when all the questions have been used. Teams get one point for each question, and the one with the most points wins the game. Wendy Beekes (2006) uses personal response system (clicker technology) to play the millionaire game with her students, and has found

increased participation, especially in more reluctant students when using this method. The following website provides PowerPoint® templates for a variety of game shows including "Who Wants to Be a Millionaire?":
http://teach.fcps.net/trt10/PowerPoint.htm

50: Write – Pair – Share   I/LC

This cooperative activity is another variation of the think-pair-share technique. The instructor asks a question or poses a problem. Students are then given several minutes to write an individual response. Alternatively students can bring their written response to class as part of a "ticket-in" homework assignment. Students pair up and share or read each other's responses and then partners share their responses with teams or with the whole class:

>   WRITE – students write their answer to a question
>   PAIR – students share their answer with a partner
>   SHARE – students share with the class

Designing an Interactive Class Session

Designing an interactive class session doesn't mean you need to completely abandon your traditional materials and techniques. That amazing lecture on classical conditioning, your favorite film clip on Milgram's experiment, or that series of PowerPoints® you spent all summer creating, can be tweaked in small ways or combined with activities and exercises that will strengthen student engagement, appeal to a wider variety of learners, and enhance performance. There is a growing body of research suggesting that even 2 or 3 one-minute active learning exercises interspersed throughout a traditional lecture is enough to significantly improve student enjoyment (Dyson, 2008) and enhance performance (Wankat, 2002).

The Lecture-Pause Procedure. One of the easiest methods for incorporating interactive learning into your existing course is to adopt a style where you lecture for a few minutes, and then stop and interject a short activity/exercise. The advantage of this pause method is two-fold. First, because attention span starts to wane after about 10-15 minutes of lecture, the interactive learning exercise will recapture student interest. Second, in order to learn and remember material, the brain needs to practice the information and process it on a deeper level. An activity immediately following the introduction of new content allows for greater processing of information and ultimately greater comprehension and retention of material.

Several analogies have been used to help instructors design interactive class sessions using the pause procedure. I find it helpful to visualize a lecture in the shape of a Greek column. Just like the top of the column starts wider, the class session should start with a broad, general introduction to your topic (about five minutes). Even your introduction may involve interactive learning, if you start with having students write a ticket-in, or do a quick hands-on demonstration. The body of the column represents the majority of your class time. Alternate 10 minutes of lecture followed by 10 minutes of interactive learning designed to reinforce the concepts covered in the lecture. For example, you may ask students to

brainstorm, discuss a controversy, watch a video and write a one-minute response, etc. Repeat the process again –- 10 minutes of lecture followed by 10 minutes of interactive learning. End the day with five minutes of discussion/summary. Like the bottom of the Greek column, you should finish up with a more general summary, or assessment of student learning. For longer class periods, simply repeat the lecture/interactive learning components again.

A couple of tips can help in the design of an interactive classroom, especially for the instructor that has not tried these techniques before:

1) Start Small. Moving away from passive learning techniques to more active ones can take a lot of work. You can make a big impact, however, by making a few small changes. For example, you could choose one learning structure, like the one-minute paper, and include this exercise several times throughout each lecture. It won't take a lot of effort to come up with questions or ideas for the one-minute assignments, nor will it take up a lot of classroom time. And yet, by including several one-minute papers in each class session, you are achieving the goal of getting students to process information actively and more deeply. Over time you may increase the variety and number of exercises.

2) Variety Is the Spice of Life. As you become more comfortable with different learning structures, you can begin to increase the number of different strategies you use in your courses. Students enjoy the spontaneity of engaging in a variety of activities. The advantage to incorporating different kinds of learning structures is that you will appeal to the different learning and processing styles of your students. Variety can also keep the instructor energized and refreshed.

3) Consider Attention Span. One of the key variables to keep in mind is that the human attention span was not designed to stay interested in a 50 minute lecture. After about 10-15 minutes, student focus is going to start trailing off. Regardless of the techniques that you choose, timing is going to be critical. The interactive exercises need to be interspersed throughout the entire class period, as opposed to using active learning as something you use to start the class, or tacked on at the end. Blood flow is also important to attention and the learning process, so using exercises where students may have to move about the room, can help keep students engaged.

4) Give Clear, Simple Instructions. One of the problems that many newcomers to interactive learning have (both instructors and students), is that they are often bogged down by instructions and explanations. Wordy or complex instructions can turn students off to trying new learning structures. Begin with simple structures that have simple instructions. The instructions can even be written on the board or a PowerPoint®. Here's an example of instructions for a write-pair-share exercise on Intelligence:

> Step 1: Write down your definition of intelligence
> Step 2: Pair with your neighbor and share your definitions
> Step 3: Come to consensus on a definition of intelligence
> Step 4: Share your new definition with the class

Once students are familiar with a learning structure, the instructor might only have to say "let's do a write-pair-share on the definition of intelligence," and students will know exactly what they are expected to do.

Creating and Building Effective Teams

Many of the interactive learning structures provided in this guide require that students work together in teams. If you decide to use teams in your classes, there are several important factors that can aid you in the creation and maintenance of effective work groups.

1) Teams of Three to Five Students Work Best

Most experts on cooperative learning agree that teams numbering three-five students are ideal. When teams are larger than five members, it is difficult for each team member to have enough time to participate in activities and discussions (Cooper, 1995). Teams of four are practical because they allow the instructor to use learning paradigms that involve pairs. The foursome may be asked to do an activity in pairs first, and then square up with their group for additional parts of the assignment. From a physical standpoint, trying to arrange four chairs/desks is much easier and allows for closer contact than dealing with seven or eight people sitting behind bulky furniture. Some educators suggest that three students is ideal, but with only three you run the risk of not having enough students to function as a group if one or two students are absent.

2) Choose Teams Carefully and Change Teams Often

There are two basic philosophies on how to create teams – team members should be similar (e.g. gender, ability level) vs. team members should be different. Regardless of which approach you choose, educators agree that "you" should determine the teams, rather than allowing students to self-select. You may also want to share with students the rationale behind team selection. It is a good idea to change teams several times during the semester to allow students to interact with more of the class.

3) Promote Accountability

For group work to be effective, the instructor must promote both individual and group accountability. Students will loaf or "hitch-hike," riding on the work of other group members, if the teams are not structured with accountability in mind. One method of making sure that individuals are accountable is to assign each team member to an important role. The roles should be rotated each class period, or every time students are moved into new teams. The following is a list of possible roles to assign. You may come up with additional roles as well.

> Recorder: Takes notes during the group discussion and compiles a presentation for the whole class
> Reporter: Presents the group information to the class
> Checker: Monitors the group members' understanding of the topic under discussion and stops the group work for clarification when someone is confused
> Encourager: Ensures that everyone has the opportunity to participate in the group's work and praises members for their contributions
> Observer: Monitors and records the overall behavior of the group according to an agreed upon checklist of behaviors.

In addition to assigning each person a role, instructors can also encourage individual accountability by using techniques where students are called upon randomly to report for the group. If students know that after a team discussion they might be called upon to talk about what the team discussed, they are more likely to pay attention during the activity.

Group accountability is as important as individual accountability. Groups must be responsible for some end product or goal. This may include written handouts, oral reporting back to the class, or some other method where group work is assessed. If the group is not required to provide evidence of their progress and outcome, motivation and participation will drop.

1) Create a Good Physical Environment

Ideally students should be facing each other, sitting "knee to knee." This position is most conducive to face-to-face interaction and increases the likelihood that everyone will participate. The furniture in the room may pose constraints that work against group work. If possible, try and request rooms on your campus that are conducive to good group interaction. This includes a room with plenty of space to move around, and furniture that can be easily reconfigured back and forth between lecturing and group work. If you are not able to select your own room, make sure to visit your classroom well before you have to start teaching in it. How many students you put on each team, and how often you incorporate team work into your class may depend on the shape, size, and orientation of the furniture.

2) Teach Small Group Skills

Effective group skills include communication, leadership, decision making, trust-building, and conflict-resolution skills. Do not assume that all students come equipped with these skills. Purposeful instruction in group skills is an important part of group work. These skills are also important to future employers, so do not feel as if taking time to teach these skills is somehow a waste of class time. Basic rules and guidelines about how to be a team member, and how to create a positive learning environment in the group, should be introduced up front. More specific skills can be introduced throughout the semester. One very important skill for teams to utilize is something referred to as group processing. Groups need to discuss how well they are working together, and how well they are achieving their goals. Groups need to discuss which aspects of their group interactions are helpful, and which behaviors can be improved.

Team Building Exercises. One of the most important criteria for effective teamwork is providing students the opportunity to connect with each other socially and emotionally before expecting them to work together. This concept, known as *contact before work*, can dramatically change the emotional climate of the classroom, and sets the stage for effective group interaction. Below are a few examples of "team building" activities. Some can be used as icebreakers on the first day of class, or when you first assign students to a group. Others can be used later in the semester when you need to give teams a quick chance to reconnect before working.

1) Peer Introductions

Purpose: To introduce students to each other and to learn the names of students.

Materials: None

Time: Approximately 10 minutes

Class Size: Appropriate for any class size

Description: This activity utilizes the three-step-interview learning structure (p. 43) Students work in groups of four. First, students pair off and interview their partner, asking them questions. The questions can be generated by the instructor or the student. The pairs reunite and introduce their partner to the other students in the group.

2) People Match

Purpose: To introduce students to each other. To help students find similarities between themselves and others.

Materials: Copies of Handout 1-A (see below)

Time: Approximately 10 minutes

Class Size: Appropriate for any class size

Description: In this ice-breaker activity, students answer a questionnaire regarding some of their personal preferences and demographic information (you may modify these questions in any way). Students move about the room introducing themselves to other students and trying to find people who share their same answers. Students with matching answers are asked to sign the handout. The goal is for students to get a signature for every item on the handout.

Handout 1-A: People Match

Instructions: Fill in your answers first. Then, introduce yourself to other students in your class and compare answers with theirs. If you have a match, you can sign each other's handouts. Continue meeting students until your handout is completely filled in.

	Your Answer	Matching Signature
Favorite Color	_____	_____
Favorite Season	_____	_____
Favorite Magazine	_____	_____
Favorite TV Show	_____	_____
College Major	_____	_____
Favorite Kids Cereal	_____	_____
Make of Car	_____	_____
Favorite Sport	_____	_____
Favorite Celebrity	_____	_____
Favorite Vacation Spot	_____	_____
Number of Siblings	_____	_____
Hometown	_____	_____
Astrological Sign	_____	_____

3) Conversation Starters

Purpose: To provide students with a brief connection exercise before they start working.

Time: Approximately five minutes

Class Size: Works best in teams

Description: The instructor provides the team with an interesting question. Each student has one minute or less to share their answer with the group. Here are some sample questions:

- What's something you've done that the rest of your group probably hasn't?
- Who would you want with you on a deserted island?
- If you could have dinner with a historical figure from the past who would you choose?

Return to Team Building Exerci•es

4) Scavenger Hunt

Purpose: To introduce students to each other.

Time: Approximately 10 minutes

Class Size: Works best with class sizes of 30 or less

Description: This activity created by Lyman (1995) requires some advance planning since you will need to collect personal information from the students prior to the activity. For example, on the first day of class you could ask students to submit a list of three unique facts about themselves. The instructor then selects one description from each student and creates a worksheet (see sample below). Students then engage in a scavenger hunt activity, searching for the people who wrote each description and collecting their signatures.

With a large class, the instructor may create a list of items without any student input. Students then move about the room trying to locate students who meet the criteria for each item and collecting signatures. The goal is to have the worksheet completely filled in with signatures.

Sample Items – Small Class
        Has a boyfriend named Cody
        Was born in the Bahamas
        Has a pet lizard named Sigmund
        Is a mother of twins

Sample Items – Large Class
        Is an only child
        Was born outside of the U.S.
        Has more than three pets
        Commutes to school by bicycle

Return to Team Building Exerci•es

5) Fact or Fiction?

Purpose: To introduce students to their team members.

Time: Approximately five minutes

Class Size: Appropriate for any class size

Description: This exercise uses the fact or fiction learning structure (p. 27). Students take a few moments to think of three facts about themselves. Two of the facts should be true, and one should be false (i.e., a lie). For example, a student might say "I'm allergic to strawberries, I have two cats, and I am a physics major." However, they are not really allergic to strawberries. Students then meet with their group and introduce themselves by sharing the three facts about themselves. Team members try to guess which statement is false.

Return to Team Building Exerci•es

6) Artistic Introductions

Purpose: To introduce students to each other using drawings.

Time: May take a long time if the class participates as a whole. May be shortened to a 10-minute activity by having students complete the exercise in their teams.

Class Size: Recommended for small classes, or for cooperative learning teams if the class is large.

Description: Students are given scratch paper and instructed to draw a picture that describes them in some way. They may draw a picture of themselves, or of their favorite possession, or their hobbies/interests. All drawings are then placed in a big bowl. The first student pulls out a picture, showing it to the class and introducing the "artist" by interpreting the sketch. After this introduction, the person who made the drawing can then add any additional information, and discuss their drawing in more detail. The task continues until every student has had a chance to randomly select a drawing and introduce a student.

Return to Team Building Exerci•es

7) Common Ground

Purpose: To provide students with a brief connection exercise before they start working.

Time: Approximately five minutes

Class Size: Teams of three-five

Description: Students are given five minutes to come up with as many commonalities between group members as possible. You may want to put some limitations on their answers. For example, you could prohibit teams from using global responses that would be true for all humans, like "we all live on earth, we each have a brain, etc." After the teams have generated their lists, you may give them a chance to share with the whole class, or you may give a prize to the team with the most commonalities.

Return to Team Building Exerci•es

8) Show-and-Tell Introductions

Purpose: The purpose of this exercise is to introduce students to each other, or as a warm-up activity for established teams.

Time: The activity typically takes one minute per person (i.e., for a team exercise it can take as little as four minutes, for a class introduction it may take significantly longer).

Description: This is an activity adapted from a method of introductions created for the corporate world (Newstrom & Scannell, 1998). The exercise can be used to do team building, or can be used as a first day of class introductory exercise. Students are instructed to select two items from their purses, wallets, backpacks, or pockets (e.g. photos, credit cards, keychains). Each team member (or class member) introduces themselves by showing and talking about how the items they selected describe some aspect of themselves.

Return to Team Building Exerci•es

9) Cocktail Party

Purpose: To introduce students to each other.

Time: Variable depending on class size.

Description: The cocktail party ice-breaker can be used on the first day of class, and works best with small class sizes (40 or less). Each student needs three pieces of scratch paper to start. Have the students put their name at the top of each piece of paper and number the papers 1, 2, and 3. Students should answer each of the following questions on the appropriate sheet:

1) Why are you taking this course?
2) What do you want to be when you "grow-up?"
3) Name something unique about yourself.

You may replace these questions with your own if you have specific information you want to gather. Give students a few minutes to write their answers on the scratch paper. Then, allow students a five minute mingling period. Just like a cocktail party, students should introduce themselves to other students. After making an introduction, the students should exchange one of their sheets of paper. At this point it is not important to read the answer but simply to exchange information. At the end of the mingling period each student should have three sheets of paper, none of which have their own name on it. After students are seated, the classroom introduction exercise begins. Select a student to stand up and say their name loudly and clearly for the class to hear, "My name is Jenny." The student holding Jenny's response to question one reads the answer out loud... "Jenny is taking this class because she's always wanted to learn about how the mind works...." This is followed by the reading of Jenny's second answer "Jenny is majoring in political science and wants to be a lawyer," and finally her third "Jenny plays the drums in an alternative rock band." After Jenny's answers have been read she is seated and the next student stands. The ice-breaker continues in this fashion until every student has announced their name. The advantage to this ice-breaker is that shy students are not expected to talk about themselves in front of an audience. Students feel much more comfortable reading written material about other students.

Return to Team Building Exerci•es

10) Personality Traits Introduction

Purpose: To introduce students to each other, or as a warm-up activity for established teams. This activity can also be used to introduce or talk about the trait approach to personality.

Time: Allow approximately 30 seconds for each person.

Description: Students are asked to introduce themselves by stating their name and attaching a personality trait to their name that begins with the same letter. For example – Athletic Ann, Intelligent Ivan, Superstitious Steve, Shy Sarah. A modification of this is to have students write their character trait description on a stick on badge and mingle with other students, discussing their badges.

Return to Team Building Exerci•es

11) Where Did Your Name Come From?

Purpose: Introductory exercise.

Time: Variable

Description: Consider using storytelling as an icebreaker. Assign students a topic on which to generate a story. Give students a few minutes to think about or write down their story. An easy and interesting topic is to have students share the story of how they got their name. Many students were named after family members, book characters, or have names that stem from cultural traditions or historical events. If you have a small class it's possible to rotate around the room and allow everyone the chance to share their story. If you have a large class you may either choose a couple of students to share their story, or divide students into groups to share stories. If you don't want to use a lot of class time, you can tell students that they have 60 seconds or less to share with their team the story of how they got their name. A good way to begin this icebreaker is by sharing the story of how *you* got your name!

Return to Team Building Exerci•es

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CONTENT-BASED INTERACTIVE LEARNING ACTIVITIES
FOR INTRODUCTION TO PSYCHOLOGY

Overview

Activity	**Learning Structure**

Introducing Psychology

1) Critical Thinking	Ticket-in, ticket-out/Think-Pair-Share
2) Controversies in Psychology	Valley of Values/Lines/Signs
3) Brainstorming Definitions	Focused Listing/Roundtable
4) Make a Toast	Think-Square-Share
5) Which Famous Psychologist am I?	What's on my back?
6) Psychological Perspectives	Jigsaw
7) Psychology and Social Problems	Write-Pair-Share
8) Find a Psychologist	Internet Investigation

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The Methods of Psychology

9) Critical Thinking	Ticket-in, ticket-out/Think-Pair-Share
10) Controversies in Research	Valley of Values/Lines/Signs
11) Mean, Median and Mode	Line-ups
12) Quiz on Correlation	Visible Quiz
13) Research and the Tabloids	Jigsaw
14) Can Science Answer It?	Focused Listing
15) Observing Behavior	Team Consensus
16) Parts of an Experiment	Two Stay/Two Stray

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Biological Foundations of Behavior

17) Critical Thinking	Ticket-In/One-Minute Papers
18) Controversies in Neuroscience	Valley of Values/Lines/Signs
19) Parts of the Brain	Poker-Faced Participation
20) Split Brain	Think-Pair-Square
21) Neurotransmitters	Expert Jigsaw
22) The Cerebral Cortex	Role Play
23) Research on Twins	Three-Step Interview
24) Endocrine Glands	Coop Cards

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Sensation and Perception

25) Critical Thinking	Ticket-In/One-Minute Papers
26) Controversies in Perception	Valley of Values/Lines/Signs

27) Flavor Determination Exercise	Pairs Check
28) Depth Perception in Art	Think-Square-Share
29) Color Blindness	Surround the Expert
30) Optical Illusions	Corners
31) Perceptual Constancies	Jigsaw
32) Just Noticeable Difference	Think-Square-Share

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States of Consciousness

33) Critical Thinking	Ticket-In/One-Minute Papers
34) Controversies in Consciousness	Valley of Values/Lines/Signs
35) What Drug am I On?	What's on my back?
36) Circadian Rhythms	Three-Step-Interview
37) Should Marijuana be Legalized?	Structured Controversy
38) Legal Drugs	Corners
39) Sleep Needs	Line-ups
40) Dream Analysis	Teacher-Student Review

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Learning

41) Critical Thinking	Ticket-In/One-Minute Papers
42) Controversies in Learning	Valley of Values/Lines/Sign
43) Classroom Norms	Think-Pair-Share
44) Student Rats	Role Play
45) Classical Conditioning in the Movies	Poker Faced Participation
46) Schedules of Reinforcement	Roll the Dice
47) Operant Conditioning	Jeopardy
48) Learning Theory in Everyday Living	Jigsaw
49) Associative Learning in Advertising	Roundtable
50) Computer Exploration	Group Investigation

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Memory

51) Critical Thinking	Ticket-In/One-Minute Papers
52) Controversies in Memory	Valley of Values/Lines/Signs
53) Memory Networks	Affinity Diagram
54) Memory Distortion	Class Participation
55) Mnemonics	Mix-Pair-Freeze
56) Interference	Roundtable
57) Serial Position Effect	Think-Square-Share
58) Forgetting	Jigsaw

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Cognitive Processes

59) Critical Thinking	Ticket-In/One-Minute Papers
60) Controversies in Intelligence	Valley of Values/Lines/Signs
61) Mental Maps	Think-Pair-Share
62) Defining Intelligence	Group Definitions
63) Problem-Solving	Think-Square-Share
64) Testing Creativity	RoundRobin
65) Gardner's Multiple Intelligences	Talking Chips
66) Prototypes	Semantic Webbing

Motivation and Emotion

67) Critical Thinking	Ticket-In/One-Minute Papers
68) Controversies in Motivation	Valley of Values/Lines/Signs
69) Maslow's Hierarchy of Needs	Semantic Webbing
70) Motivational Conflicts	Think-Square-Share
71) Evaluating Diet Plans	Gallery Walk
72) Physique Preferences	Team Consensus
73) Universal Facial Expressions	Discussion with Talking Chips
74) Murray's Taxonomy of Needs	Jigsaw

Developmental Psychology

75) Critical Thinking	Ticket-In/One-Minute Papers
76) Controversies in Development	Valley of Values/Lines/Signs
77) Piaget's Stages	Role Play
78) Designing a Daycare	Gallery Walk
79) Moral Development	Pairs Check
80) Stereotypes and Aging	RoundRobin
81) Erikson's Stages	Line-ups
82) Death and Dying	Surround the Expert

Social Psychology

83) Critical Thinking	Ticket-In/One-Minute Papers
84) Controversies in Social Psych.	Valley of Values/Lines/Signs
85) Defining Aggression	Semantic Webbing/Affinity Diagram
86) Bystander Effect	Group Investigation
87) Advertising	Mix-Pair-Freeze
88) Social Identity Theory	RoundRobin
89) Social Norms	Focused Listing
90) Public Service Announcements	Gallery Walk

Health Psychology

91)	Critical Thinking	Ticket-In/One-Minute Papers
92)	Controversies in Health Psych.	Valley of Values/Lines/Signs
93)	Leading Causes of Death	Roundtable
94)	Defense Mechanisms	Role Play
95)	Everyday Hassles	Focused Listing
96)	Coping with Final Exam Stress	Write-Pair-Share
97)	Personality and Stress	Three-step interview
98)	Adapting to a new Culture	Team Consensus

Sex and Gender

99)	Critical Thinking	Ticket-In/One-Minute Papers
100)	Controversies in Sex/Gender	Valley of Values/Lines/Signs
101)	What's My STD?	What's on my back?
102)	Gender Roles	Roundtable
103)	Analysis of Children's Toys	Think-Pair-Share
104)	Male and Female Anatomy	Pairs Check
105)	Contraception	Expert Jigsaw
106)	Puberty	Role Playing

Personality

107)	Critical Thinking	Ticket-In/One-Minute Papers
108)	Controversies in Personality	Valley of Values/Lines/Signs
109)	Theories of Personality	Jigsaw
110)	Who am I?	Think-Pair-Share
111)	Celebrity Analysis	Send/Pass a Problem
112)	Fixations and Personality Type	Think-Pair-Share
113)	Projective Tests	Write-Pair-Share
114)	Measuring Personality	Jigsaw

Psychopathology

115)	Critical Thinking	Ticket-In/One-Minute Papers
116)	Controversies in Psychopath.	Valley of Values/Lines/Signs
117)	What's My Disorder?	What's on my back?
118)	Speed Dating	Inside/Outside Circles
119)	Gallery Walk on Disorders	Gallery Walk
120)	Personal Accounts	Surround the Expert
121)	Explaining Psychopathology	Corners
122)	Phobias	Semantic Webbing

Treatment for Psychopathology

Introducing Psychology

Activity	Learning Structure
1) Critical Thinking	Ticket-in, ticket-out/Think-Pair-Share
2) Controversies in Psychology	Valley of Values/Lines/Signs
3) Brainstorming Definitions	Focused Listing/Round Table
4) Make a Toast	Think-Square-Share
5) Which Famous Psychologist am I?	What's on my back?
6) Psychological Perspectives	Jigsaw
7) Psychology and Social Problems	Write-Pair-Share
8) Find a Psychologist	Internet Investigation

1) Critical Thinking

Purpose: Students complete a brief one-minute assignment that involves critical thinking, personalizing, or deeper processing of information
Learning Structure: Ticket-In/One-Minute Papers
Time: 1-5 minutes
Class Size: Appropriate for any class size

Description: Students are given a couple minutes to answer a question posed by the instructor. These assignments can be used in a variety of ways – to verify attendance, to start discussion, to assess student knowledge, and to provide opportunities for critical thinking. Sample assignments are provided below:

1. Psychological Perspectives. Provide students with a scenario for a fictional person (e.g., "Mary is extremely underweight. She often refuses to eat and her parents fear that she may be anorexic.") and ask students to generate possible explanations for her behavior. Their responses will generally reflect aspects of the major perspectives in psychology -- cognitive, psychodynamic, behavioral, sociocultural, neuroscience, humanistic. You may choose to use some of these ticket-in responses to illustrate the different perspectives.

2. Psychology in the Movies. Have students identify a popular movie that attempts to investigate or explain human behavior. Use their responses to illustrate the major psychological perspectives in action, and to explain the behavior of the character(s) in the movie. For example, in *Total Recall,* Arnold Schwarzenegger alters his behavior as a result of a memory implant procedure (neuroscience perspective).

3. Pop-Psychology. Ask students if they have ever read a self-help book, or listened to a radio show or watched a talk show with a guest psychologist. Did the psychologist have good advice? Did they discuss any research findings? This exercise can segue into a discussion of pop-psychology and the importance of empirical findings in separating science from psychology used for entertainment.

4. Generate Research Questions. After presenting the major research subfields in psychology -- clinical, social, developmental, experimental, personality, etc., ask students to generate some research questions and identify which type of psychologist would be most likely to study this question. Some research questions would be of interest to more than one type of psychologist. Why might this be so?

5. Create your own perspective. After presenting the contemporary approaches to psychology, ask students to create their own perspective of human behavior. They may include aspects of the perspectives outlined in the book, or may include their own ideas.

2) Controversies in Introductory Psychology

Purpose: Students think critically about controversial topics in psychology
Learning Structure: Valley of Values/Value Line/Value Signs
Time: Approximately 15 minutes
Class Size: Appropriate for any class size

Description: Using one of the learning structures for controversies – Corners, Structured Controversy, Valley of Values, Value Signs, or Value Lines, the instructor poses controversial questions to the class. Students share their answers and contribute to further class discussion. Here are some controversies from introduction to psychology:

- Our behaviors are a result of free will
- The mind and body are two separate things
- Heredity is more important in determining behavior than the environment
- Principles of behavior are universal (as opposed to culture-specific)
- Science is the best way to learn about human behavior

3) Brainstorming Definitions

Purpose: Students examine their image of psychologists
Learning Structure: Roundtable and Focused Listing
Time: Approximately 15 minutes
Class Size: Appropriate for most class sizes

Description: Using the Focused Listing technique, students generate a list of qualities associated with the word "psychologist." Then, they make a second list of words associated with the definition of "scientist." Using the roundtable format, students share and compare their two lists. Students discuss the common misconceptions of psychologists as "therapists" only. The instructor may ask teams to share their lists with the class.

4) Toasting the Contributions of Early Psychologists

Purpose: Students discuss the contributions of early psychologists
Learning Structure: Think-Square-Share
Time: 15 minutes
Class Size: Appropriate for any class size

Description: After reading about the contributions of historical figures in psychology, assign each team of students to a different figure. Using the think-square-share technique students begin by individually preparing "toasts" to their assigned figure. Students are instructed to honor the accomplishments of contributors, as opposed to "roasting" and are encouraged to be creative such as using humor and rhyme. Second, students share their toasts out loud with teammates. Teams select the one they like best to share with the larger class. One of the benefits of this exercise is that it provides students with mnemonic devices, as well as exposure to contributors who are often overlooked in historical discussions. In large class, you can skip the second stage, and call on students to share their toasts.

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5) Which Famous Psychologist am I?

Purpose: Students discuss the major historical figures in psychology
Learning Structure: What's on my back?
Time: Approximately 15 minutes
Class Size: Appropriate for any class size

Description: The purpose of this activity is to familiarize students with the names and contributions of notable psychologists. For this activity, you will need to prepare a sign for each student to wear on their back. As students enter the class, pin or tape a sign to their back with the name of a psychologist covered in the introductory chapter. Make sure that the student doesn't see the name assigned to them. If you have a large class, you may need to give several people the same historical name. After discussing the history of psychology tell students that they are going to have a chance to try and guess the name of the psychologist on their back. Allow a 10-15 minute "mingling" period in which students can move about the room interacting with other students. Students are only allowed to ask questions of others, which can be answered yes or no. For example the students might ask, "Am I a woman?" After hearing the answer, they must move on to a new student to ask their next questions, "Am I associated with functionalism?" or "Was I the first woman to receive a doctoral degree in psychology?"
    This activity can be modified for large classes. If your room lacks space for "mingling" or you simply have too many students to complete the activity comfortably, you may want to modify this activity by asking for several volunteers. The volunteer students can stand in front of the class and can take turns asking questions of the entire class until they are able to figure out their assigned name.

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6) Psychological Perspectives

Purpose: Students apply what they've learned about psychological perspectives to a real life situation
Learning Structure: Jigsaw
Time: Approximately 15 minutes

Description: This exercise is most effective if completed immediately following a discussion of the major psychological perspectives. Students practice analyzing the behavior of a fictional character "Ted" using the major psychological perspectives. Read the following description of Ted to the class:

> Ted is a freshman at your college. He has been drinking a lot lately. There is some concern that Ted may be an alcoholic.

This exercise is done in teams of 4. Each student is assigned to a different psychological perspective. Do not announce this out loud. A folded piece of paper handed to each student works best. Give students a few minutes to think about the fictional scenario of "Ted" and generate an explanation for Ted's behavior given their assigned perspective. Each team member then shares their explanation with the rest of their team. The rest of the team then tries to guess which psychological perspective was used. Afterward, you can call on a few students to share their explanation and have the class try to guess the perspective.

You may want to discuss how difficult it is to analyze behavior from only one perspective. Point out that there is no "right" perspective. Each perspective explains behavior in a different way. Discuss how the most complete explanation of a behavior involves gathering information from each perspective.

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7) Psychology and Social Problems

Purpose: Students identify and observe psychology in the news. Specifically, students investigate the role of psychology in addressing social problems.
Learning Structure: Jigsaw and Group Investigation
Time: Approximately 20 minutes

Description: Students are divided into teams of four, and each student is assigned to a category of social problems.   Some examples are presented here:

- changes in the workplace
- new genetic knowledge
- deteriorating social conditions
- urban strife

Give each student a newspaper or section of a newspaper (or have them bring one to class). Have them look for specific articles or examples of their subtopic. Have students report back to their group. How many articles did they find? Students may be surprised at how many articles would be of interest to psychologists. Do any of the articles present empirical information? This is a good exercise to show how psychology can be used to address personal and societal problems. How do you think current events influence what psychologists choose to study?

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8) Find a Psychologist

Purpose: Students learn about the profession of psychology
Learning Structure: Internet Investigation
Time: 20 minutes

Description: Have students search the web for the homepage of a psychologist. College and university psychology departments, clinics, hospitals, and research institutes are good starting points. After students have found a psychologist, have them answer the following questions:

1. Who did you find?
2. What kind of job does this psychologist have? (i.e.,, teacher, researcher, therapist, etc.)
3. What type of setting does this psychologist work in?
4. What additional information do you have about this psychologist? Can you tell what theoretical perspective they might have? Training? Subfield or area of expertise? Research interests?

After students have completed this exercise on their own, you may want to use one of the learning structures to disseminate the information students have gathered with the rest of the class. For example, you could use the Numbered Heads together technique to call on students, or the Think-pair-share technique to have students present in their teams. You may want to collect the information as a ticket-in and/or use it to begin a discussion on the profession of psychology.

Methods of Psychology

Activity	**Learning Structure**
9) Critical Thinking	Ticket-in, ticket-out/Think-Pair-Share
10) Controversies in Research	Valley of Values/Lines/Signs
11) Mean, Median and Mode	Line-ups
12) Quiz on Correlation	Visible Quiz
13) Research and the Tabloids	Jigsaw
14) Can Science Answer It?	Focused Listing
15) Observing Behavior	Team Consensus
16) Parts of an Experiment	Two Stay/Two Stray

9) Critical Thinking

Purpose: Students complete a brief one-minute assignment that involves critical thinking, personalizing, or deeper processing of information
Learning Structure: Ticket-In/One-Minute Papers
Time: 1-5 minutes
Class Size: Appropriate for any class size

Description: Students are given a couple minutes to answer a question posed by the instructor. These assignments can be used in a variety of ways – to verify attendance, to start discussion, to assess student knowledge, and to provide opportunities for critical thinking. Sample assignments are provided below:

1. Observational Methods. Think of a research question that could only be answered by using observation. What question did you choose? Why wouldn't other methods be as effective?
2. Correlation. Think of an example of positive correlation from your everyday life. Think of an example of negative correlation. Can you think of a third example of two variables that are not correlated at all? What do you think is meant by the statement "Correlation is not causation"?
3. Hypothesis Testing. Think of an example of a hypothesis that would be of interest to college students. How would you test your hypothesis? Describe the methods and variables you would use.
4. Survey Method. Have you ever completed a survey? Where and how was the survey conducted? What are some advantages and disadvantages to the survey method?
5. Research Claims. Can you think of a research claim that you heard in the media (e.g.,, 4 out of 5 dentists recommend a certain toothpaste). How confident were you that the research claim was accurate? What additional information would you want before believing the claims you hear on TV or in advertising?

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10) Controversies in Research

Purpose: Students have a chance to think about, debate, and discuss controversial topics in research methods.
Learning Structure: Valley of Values/lines/signs
Time: 15 minutes
Class Size: Appropriate for most class sizes

Description: Using one of the learning structures for controversies – Corners, Structured Controversy, Valley of Values, Value Signs, or Value Lines, the instructor poses controversial questions to the class. Students share their answers and contribute to further class discussion. Here are some controversies from the area of Research Methods:

- Should researchers be allowed to deceive participants if the knowledge gained could benefit humanity?
- Should animals be used in psychological research?
- Should rats be given the same rights and protection as monkeys?
- Should infants be used in psychological research even with parent consent?
- Observational studies conducted in public places should not require informed content.

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11) Mean, Median, and Mode

Purpose: To illustrate the concepts of mean, median, and mode
Learning Structure: Line-ups
Time: 20 minutes
Class Size: Appropriate for smaller class sizes
Description: The line-ups technique can be used to give students a kinesthetic and visual sense of descriptive statistics. The instructor asks students a question with an answer that can be ordered numerically. For example, the instructor could use age or height. Students line themselves up according to their answers. The instructor can then use the data to calculate the mean (average score), and students can number off themselves in order to locate the median (middle score). A variation of this exercise is to play numbered cards along the line. For example with age, the cards could be numbered from 17 to 25. Students should stand on their age. It will be easy to see which age occurs most frequently (mode).

You can also use this exercise to illustrate the importance of having a large sample. You can start by selecting 5 students to line up based on height, and then calculate them mean. Then select a different 5 students and calculate a second mean. After you've done this several times, start adding 5 students at a time and continue to calculate the mean. Continue to add until the whole class in on the line. You may also be able to graph a normal curve based on student data.

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12) Quiz on Correlation

Purpose: Students identify positive and negative correlation. Instructors asses how well students understand the difference between positive and negative correlation.
Learning Structure: Visible Quiz
Time: 5-10 minutes
Class Size: Appropriate for most class sizes

Description: Using the visible quiz technique, instructors ask students to write the word *positive correlation* one side of a piece of paper, and *negative correlation* on the other. The instructor reads a list of prepared examples of correlations such as the following:

1) The more I eat, the more I weigh
2) The more time I spend at the mall, the less money I have
3) The more I brush my teeth, the fewer cavities I have
4) The less I study, the poorer my grades

After the instructor reads an item, students indicate by holding up their paper whether it's an example of positive or negative correlation. This activity can reinforce lecture material on correlation, but also allows instructors to assess how well students understand correlation.

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13) Research and the Tabloids

Purpose: Students think critically about research claims in the tabloids
Learning Structure: Jigsaw
Time: 20 minutes
Class Size: Most appropriate for small classes

Description: Students are instructed to bring in a research claim from a tabloid magazine or newspaper. Tabloids often have wild headlines like "Winos live longer," or "Dogs and cats have exciting dreams." Teams should work together to design a hypothetical experiment to test these research claims. If scientists wanted to test the claim that winos live longer, how could they do it? Students should write a description of their experiment and identify all the major components (hypothesis, independent variable, dependent variable).

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14) Can Science Answer It?

Purpose: Students discuss the limitations of science
Learning Structure: Focused Listing
Time: 15 minutes
Class Size: Appropriate for most class sizes

Description: Students are asked to generate a list of questions. Some of the questions should be able to be measured scientifically (e.g., Do people with freckles live longer?) while others cannot (e.g., Would animals rather be put to sleep than die of natural causes?). Once students have completed their lists, they can pair with other students for discussion. Students may want to read the list and see if their partner can determine which questions can or cannot be answered by science. With a large class, instructors may call on a handful of students to share their lists and generate discussion. Unfortunately, scientific methods cannot be used to answer every question about human behavior. With this activity, students can think about and discuss what questions make good candidates for scientific inquiry.

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15) Observing Behavior

Purpose: Students experience the disadvantages of the observational method
Learning Structure: Team Consensus
Time: 20 minutes
Class Size: Appropriate for most class sizes

Description: For this exercise, you will need to arrange for students to observer a person for 5 minutes. There are several options – you can show a video clip from a movie or television show, or you can arrange for students to observe your behavior at the front of the room. Either way, students should record as many details as they can. You may want to give them specific instructions such as "Record any details that would give you information about my mood." Using the team consensus, students share their written responses with fellow team members. Team members try to reach consensus by determining what their answers have in common. For larger classes, the instructor may call on several students to share their observations and record only the common answers on the board. This exercise is a good demonstration of observer bias. Even though all students observed the same person/situation, students will record different information and may interpret their observations differently.

16) Parts of an Experiment

Purpose: Students design an experiment and review the parts of an experiment
Learning Structure: Two Stay/Two Stray
Time: 30 minutes
Class Size: Most appropriate for small classes

Description: Students work in teams of four to design a simple experiment. The instructor may give general guidelines like "If I wanted to find out if exam scores are higher if students drink alcohol, what could I do?" Or, the instructor may allow students to choose their own topic. On the front of a handout, the students should describe their experiment, and on the back they should list the basic parts of an experiment:

- Hypothesis
- Independent Variable
- Dependent Variable

For deeper processing, two team members leave the group and visit another team. In this "new" team, pairs can share their experiments and quiz the other pair on the parts of the experiment. This allows for both quizzing on new information, as well as checking and reviewing old information. Pairs can then return to their original team for further discussion.

Biological Foundations of Behavior

Activity	Learning Structure
17) Critical Thinking	Ticket-In/One-Minute Papers
18) Controversies in Neuroscience	Valley of Values/Lines/Signs
19) Parts of the Brain	Poker-Faced Participation
20) Split Brain	Think-Pair-Square
21) Neurotransmitters	Expert Jigsaw
22) The Cerebral Cortex	Role Play
23) Research on Twins	Three-Step Interview
24) Endocrine Glands	Coop Cards

17) Critical Thinking

Purpose: Students complete a brief one-minute assignment that involves critical thinking, personalizing, or deeper processing of information
Learning Structure: Ticket-In/One-Minute Papers
Time: 1-5 minutes
Class Size: Appropriate for any class size

Description: Students are given a couple minutes to answer a question posed by the instructor. These assignments can be used in a variety of ways – to verify attendance, to start discussion, to assess student knowledge, and to provide opportunities for critical thinking. Sample assignments are provided below:

1. Brain function. If you could enhance the function of one structure in your brain, what would it be? Suppose a television network wanted to create a superhero with your brain capabilities. What would you name the superhero?
2. Hemisphere Dominance. Would you consider yourself a right-brain or left-brain thinker? Why? Give examples to support your answer.
3. Autonomic System. Think of a time when you were very frightened. What sorts of bodily symptoms did you experience? Think of a time when you were very calm and relaxed. What sorts of bodily symptoms did you experience? List them.
4. Heredity. Are there any physical characteristics in your family tree that appear to be dominant – eye color, shape or size of the nose, height, hair color, dimples, etc.? List these dominant traits.
5. Brain damage. Do you know anyone who has had damage to their brain? What caused the damage – an illness, a trauma, a birth defect? What symptoms does the person have? Is the brain damage permanent?

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18) Controversies in Neuroscience

Purpose: Students have a chance to think about, debate, and discuss controversial topics in neuroscience.
Learning Structure: Valley of Values/lines/signs
Time: 15 minutes
Class Size: Appropriate for most class sizes.

Description: Using one of the learning structures for controversies – Corners, Structured Controversy, Valley of Values, Value Signs, or Value Lines, the instructor poses controversial questions to the class. Students share their answers and contribute to further class discussion. Here are some controversies in neuroscience.

- All children should be encouraged to become right-handed
- Neural transplant surgery (using fetal brain tissue) to treat brain damage is ethical
- Should human cloning be banned?
- Do genes influence human behavior more than the environment?
- Should sports that can cause brain damage like boxing and mixed martial arts be banned?

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19) Parts of the Brain

Purpose: Students can review the parts of the brain
Learning Structure: Poker-Faced Participation
Time: 15 minutes
Class Size: Appropriate for most class sizes

Description: Using a modified version of *poker-faced participation*, instructors can review and assess student's memory for the parts of the brain. The instructor prepares a list of questions dealing with the structures of the brain.

e.g., "This structure plays an important role in our balance' [cerebellum]
    "This structure gets it's name from the greek word for almond [amygdala]
    "This is the oldest, most primitive part of the brain" [brainstem]

There are several variations to this activity, but the general idea is that the instructor reads a question, and calls on the first raised hand. If the student gets the question correct, they (or their team, or their side of the room), get a playing card. If they get the answer wrong they must return a playing card to the instructor. Play continues for a specified period of time, or until all the questions have been answered. The person, or team, or side of the room tries to make the best 5-card poker hand they can using the cards they earned. You can reward the winner with candy, or extra credit points.

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20) Split Brain

Purpose: Students experience what it would feel like to have a split brain
Learning Structure: Think-Pair-Square
Time: 15 minutes
Class Size: Most appropriate for small classes

Description: This activity allows students to feel some of the difficulty and frustration following split-brain surgery where the person's hemispheres can no longer communicate directly. Students should sit

next to their partner. Each student plays the role of one hemisphere. Their outside arms should go behind their backs or remain still during the exercise. Arms closest to their partner should cross each other so that each "hemisphere" is controlling the opposite hand. The instructor can provide a series of tasks such as the following:

- Tying a shoe
- Opening a can with an opener
- Sealing an envelope
- Tearing open a bag of chips

The exercises will be quite difficult because each student is only controlling one hand, and the hands must work together to complete the task. These activities are a good segue into further discussion of split-brain surgeries.

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21) Neurotransmitters

Purpose: Students learn about the major neurotransmitters and their effects
Learning Structure: Jigsaw
Time: 15 minutes
Class Size: Most appropriate for smaller classes

Description: Using the expert jigsaw technique, each team member is assigned to a different neurotransmitter. Students may be asked to complete their research outside of class, or you may give students 5 minutes in class to look up the information in their textbook. Students meet in expert groups to make sure they have the correct information on their assigned neurotransmitter. Students return to their teams and present information on their neurotransmitter.

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22) The Cerebral Cortex

Purpose: Students recognize the functions of the four lobes of the cerebral cortex
Learning Structure: Role Play
Time: 10 – 20 minutes
Class Size: Appropriate for most class sizes

Description: In this charade-like exercise, students come to the front of the room and act out a behavior (e.g., problem solving, balancing an object, smelling an object). The behaviors can be either student generated or instructor generated. The other students try to guess which lobe of the brain is responsible for that behavior – Frontal, Occipital, Temporal or Parietal. There are many variations in how this activity can be scored. You can give points to teams with the most correct guesses, or you can give playing cards as a reward and use the poker-faced participation technique.

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23) Research with Twins

Purpose: Students think critically about research using twins
Learning Structure: Three-Step Interview
Time: 15 minutes
Class Size: Appropriate with most class sizes

Description: One way that researchers have examined the role of genetics is through the examination of identical twins. Some studies of twins who have been reared apart have shown that twins have striking similarities in interests, beliefs, and attitudes. However, critics argue that if you ask enough questions, you can find a long list of commonalities between total strangers. To illustrate this, four member teams are divided into A's and B's. In the first step, the A's ask the B's 20 or so questions, and record anything they have in common. For example, they may ask their partner questions about music preferences, food likes, and personality traits. In step two, the B's interview the A's. Then, the pairs reunite and share their responses with the team. In a large class, the instructor can call on pairs to share with the class. Were students able to find commonalities with their partner? Are their ways to conduct research to find out if identical twins are more similar than two strangers? Are their other disadvantages to research with twins?

24) Endocrine Glands

Purpose: Students review and discuss the endocrine glands
Learning Structure: Coop Cards
Time: 15 minutes
Class Size: Appropriate for most class sizes

Description: In this modified version of the coop cards techniques, students partner up and create flashcards of the endocrine glands on scraps of paper. One student may create cards with the name of the gland on one side, and the name of the hormone it produces on the other. The other student may create cards with the hormone on one side, and the function of the hormone on the other. To save class time, you may require students to complete the flashcards at home and bring them to class. Using the coop cards techniques, students alternate playing the role of teacher and learner.

Sensation and Perception

Activity	**Learning Structure**
25) Critical Thinking	Ticket-In/One-Minute Papers
26) Controversies in Perception	Valley of Values/Lines/Signs
27) Flavor Determination Exercise	Pairs Check
28) Depth Perception in Art	Think-Square-Share
29) Color Blindness	Surround the Expert
30) Optical Illusions	Corners
31) Perceptual Constancies	Jigsaw
32) Just Noticeable Difference	Think-Square-Share

25) Critical Thinking

Purpose: Students complete a brief one-minute assignment that involves critical thinking, personalizing, or deeper processing of information
Learning Structure: Ticket-In/One-Minute Papers
Time: 1-5 minutes
Class Size: Appropriate for any class size

Description: Students are given a couple minutes to answer a question posed by the instructor. These assignments can be used in a variety of ways – to verify attendance, to start discussion, to assess student knowledge, and to provide opportunities for critical thinking. Sample assignments are provided below:

1. The Senses. If you had to give up one of your senses which one would you choose? Explain your answer.
2. A sixth sense. You've been given the job of creating a sixth sense for an alien in an upcoming movie. What would this sense entail? What would you call it?
3. Smell. Can you think of a particular smell(s) that is tied to a childhood memory? The smell of apple cider in the fall? The small of cut grass? Identify several smells and their related memories.
4. Bottom-up and Top-Down processing. Give examples of bottom-up and top-down processing from your everyday life.
5. Careers and the Senses. Think of the career you hope to have one day. Which senses will be most important in this career? For example, a chef, a plumber, and a dancer all make very different use of sensory information in their daily jobs.

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26) Controversies in Perception

Purpose: Students have a chance to think about, debate, and discuss controversial topics in sensation and perception.
Learning Structure: Valley of Values/lines/signs
Time: 15 minutes
Class Size: Appropriate for most class sizes

Description: Using one of the learning structures for controversies – Corners, Structured Controversy, Valley of Values, Value Signs, or Value Lines, the instructor poses controversial questions to the class. Students share their answers and contribute to further class discussion. Here are some controversies in sensation and perception.

- Subliminal perception should be allowed in advertising
- Color blindness should be categorized as a disability
- ESP exists
- Some people have a sixth sense
- Children with auditory or visual impairment should be mainstreamed in our educational system

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27) Flavor Determination Exercise

Purpose: Students complete an experiment illustrating the role of smell, taste, and sight in determining flavor
Learning Structure: Pairs Check
Time: 15 minutes
Class Size: Appropriate for most class sizes

Description: Students partner with a neighbor and complete an experiment on flavor determination. You will need to provide students with either gummy lifesavers, jelly beans, or a similar candy that comes in several flavors. One student is the "experimenter" and the other student is the "eater."   In all three experimental conditions, the eater reaches into a bag of candy, tastes it, and tries to guess the flavor. The experimenter will record both the color eaten, as well as the flavor guessed. Students will then switch roles.

Condition #1: Eyes closed and nose plugged
Condition #2: Eyes closed and nose unplugged
Condition #3: Eyes open and nose unplugged

After everyone has completed the experiment, you can write the names of the flavors on the board and students can check their answers for accuracy. With a show of hands, you can count up how many students accurately guessed the flavor in the first condition, then the second, and finally the third. Students will probably see a noticeable difference in how well the class performed in each of the three conditions. The more senses we have working, the better job we do determining flavor.

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28) Depth Perception in Art

Purpose: Students creates the illusion of depth on a flat surface
Learning Structure: Think-Square-Share
Time: 15 minutes
Class Size: Works for most class sizes
Description: Artists face the task of creating the illusion of depth on a flat surface. Artists use many of the monocular cues to do this. Students are given 5 minutes to create a drawing that gives the illusion of depth. Using one or more of the monocular cues for depth listed in their textbook, students should have no trouble creating the illusion of depth on their paper. On the back of their paper students should list the cue(s) used. Students should then reunite with their team. Each student should hold up their drawing while the other students point out the monocular cue(s). There are a lot of variations to this activity. You could assign individual students or teams to a particular cue and then each team share their drawing with the class. Or, you could have teams work together and try to create a drawing that uses four or more cues. In addition, the instructor may select several drawings to display to the class using a doc-cam or opaque projector.

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29) Color Blindness

Purpose: Students discuss how color blindness influences daily living
Learning Structure: Surround the expert
Time: 15 minutes
Class Size: More appropriate for smaller class sizes

Description: The instructor asks for volunteers to be the experts on color blindness. The volunteer could be someone who suffers from color blindness or knows someone in their family who does. Color blindness is relatively common, especially in males, so there are usually a few people in every class who can volunteer. Students can surround the "experts" and ask questions. Experts are encouraged to share information on how people with color blindness adapt to daily living, and under what circumstances color blindness poses problems. For example, people who have trouble with red and green, may have to memorize the position of the lights at an intersection, since they can't rely on information about color. This activity is a good lecture starter for discussions on color vision.

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30) Optical Illusions

Purpose: Students discuss the science behind optical illusions
Learning Structure: Corners
Time: 15 minutes
Class Size: Works for most class sizes
Description: Each student brings an optical illusion to class. Illusions are plentiful on the Internet. If the student doesn't have access to the Internet, they may photocopy one from their textbook. The student should take time to learn about the science behind the illusion and how the brain is fooled. In class,

students can join a group with others who have similar illusions (e.g.,, afterimages, relative size, perceptual set, etc.). These groups meet in different "corners." After some discussion and consensus about this group of illusions, a spokesperson for the group can share with the class. If you have a doc cam or opaque projector, the illusions can be shared with the whole class.

31) Perceptual Constancies

Purpose: Students teach each other about the perceptual constancies
Learning Structure: Jigsaw
Time: 15 minutes
Class Size: Appropriate for small class sizes

Description: This exercise should be completed in teams of three students. Each student is assigned to one of the perceptual constancies – size, shape, or brightness. Students have 5 minutes to read the section of the textbook on their assigned constancy and come up with several everyday examples that illustrate the constancy in action. Students teach/present their constancy to the group. Instructors can randomly call on students to explain the constancy and give an example.

32) Just Noticeable Difference

Purpose: Students complete a demonstration on the difference threshold
Learning Structure: Think-Square-Share
Time: 20 Minutes
Class Size: Most appropriate for smaller classes

Description: In teams, students complete a hands-on demonstration of the difference threshold (just noticeable difference). The instructor will need to provide each team with two paper cups and a bag of marbles, or something similar that can be incrementally weighted and measured. The instructor tells the class how many marbles should be used in each cup (e.g., 10). Students take turns being the research participant. They close their eyes, and the cups with 10 marbles each are placed in their hands. Then, teammates take the cups, and add a marble to one cup to see whether the research participant can feel any difference. Marbles are added one at a time until the participant feels certain that one cup is now heavier. Each student takes a turn and comes up with an average JND. Groups can compare their findings and the instructor can record data for the class on the board. Scores will be very similar across groups. This activity is a good demonstration of the human limitations of the senses.

States of Consciousness

Activity	**Learning Structure**
33) Critical Thinking	Ticket-In/One-Minute Papers
34) Controversies in Consciousness	Valley of Values/Lines/Signs
35) What Drug am I On?	What's on my back?
36) Circadian Rhythms	Three-Step-Interview
37) Should Marijuana be Legalized?	Structured Controversy
38) Legal Drugs	Corners
39) Sleep Needs	Line-ups
40) Dream Analysis	Teacher-Student Review

33) Critical Thinking

Purpose: Students complete a brief one-minute assignment that involves critical thinking, personalizing, or deeper processing of information
Learning Structure: Ticket-In/One-Minute Papers
Time: 1-5 minutes
Class Size: Appropriate for any class size

Description: Students are given a couple minutes to answer a question posed by the instructor. These assignments can be used in a variety of ways – to verify attendance, to start discussion, to assess student knowledge, and to provide opportunities for critical thinking. Sample assignments are provided below:

1. Daydreams. Do you daydream daily? How do your daydreams differ from the dreams you have at night? Do they differ in number? In content? Do they differ in perceptual experiences? Explain.
2. Sleep Disturbances. Have you ever experienced a sleep disturbance such as insomnia, sleepwalking, or sleeptalking? Give a description of an episode. Does this sleep disturbance run in your family?
3. Pain Control. Think of a time when you were experiencing pain. What techniques did you use, if any, to control the pain? Explain.
4. Sleep needs and patterns. How many hours of sleep do you get each night? Would you consider yourself a short sleeper or a long sleeper? Are you a heavy sleeper or a light sleeper? What factors have contributed to your sleep patterns?
5. Sleep Deprivation. What's the longest period of time you've ever gone without sleep? Did you experience any changes in functioning as a result of the sleep deprivation? Describe your experience.

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34) Controversies in Consciousness

Purpose: Students have a chance to think about, debate, and discuss controversial topics in consciousness.
Learning Structure: Valley of Values/lines/signs
Time: 15 minutes
Class Size: Appropriate for most class sizes

Description: Using one of the learning structures for controversies – Corners, Structured Controversy, Valley of Values, Value Signs, or Value Lines, the instructor poses controversial questions to the class. Students share their answers and contribute to further class discussion. Here are some controversies in consciousness:

- A person should not be held criminally responsible for acts they committed during an episode of sleepwalking
- Do dreams have important meaning?
- Marijuana should be legalized
- Therapists should use hypnosis to uncover repressed memories
- Is drug addiction a choice?
- The age limits for alcohol use should be lowered (or raised)

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35) What Drug am I On?

Purpose: Students review the different drugs discussed in their textbook
Learning Structure: What's on my back?
Time: 15 minutes
Class Size: Works for most class sizes

Description: Using the *What's on my back*? learning structure, the instructor begins by discreetly taping the name of a psychoactive drug on each students back. Students then try to guess the drug on their back by asking other students questions that can be answered with yes or no. They might ask,"Am I a stimulant?" or "Do I make people hallucinate?" Once they've guessed their drug, they can remove it from their back, and continue to help other students around them. Several different formats can be used depending on class size, and classroom configuration. You can have students wander around the room, and mingle like they're at a party, and have them ask a student one question, and then move on to another student. Or, you could have students stay seated and work in teams. In large classes, there isn't time for the instructor to walk around and tape a paper to each student's back, so modifications need to be made. Students can be assigned to work in pairs. Start by having each student think of a drug for their partner to guess (they may want to write it down on a piece of paper and than flip it over). Students then ask each other questions, trying to guess what's on the paper.

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36) Circadian Rhythms

Purpose: Students examine their own circadian rhythms
Learning Structure: Three-Step-Interview
Time: 15 minutes
Class Size: Most appropriate for small classes

Description: Using the three-step-interview technique, team members divide into A's and B's. Using the questions below, A's interview B's and determine whether they are morning people, evening people, or neither. B's then interview the A's, using the same questions. The pairs reunite and share their responses

with the team. The teams may also discuss the advantages and disadvantages to morning dominance vs. evening dominance. They can also discuss how their circadian rhythms have influenced their personal life, their employment, or their education.

Sample questions:
- If you were going to do a new difficult workout program lasting an hour a day, which hour of the day would you choose to do it?
- You have an important research paper to write for school, would you rather get up early and write it, or stay up late at night to write it?
- Ideally, what time of the day would you like to get up?
- Ideally, what time of the day would you like to go to sleep?
- How easy do you find getting up in the morning?
- How alert are you in the first half-hour after waking in the morning?
- If you could choose the hours for an 8 hour work shift, what would you choose?

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37) Should Marijuana be Legalized?

Purpose: Students discuss the regulation of altered states
Learning Structure: Structured Controversy
Time: 20 minutes
Class Size: Appropriate for most class sizes

Description: Students are given the topic of whether or not marijuana should be legalized. Students complete the exercise in A-B pairs. The A's are assigned to the favorable position, while the B's are assigned the opposing view. Students are given several minutes to plan their arguments. Then, A's partner with B's and share their arguments. Partners have a chance to discuss the issue. Then they switch roles. Now they must prepare a new set of arguments. Partners may be asked to come to a consensus that can be shared with the larger class.

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38) Legal Drugs

Purpose: Students discuss the legal drug industry
Learning Structure: Corners
Time: 20 minutes
Class Size: Works best with small to mid sized classes

Description: Have students find a magazine advertisement for a psychoactive drug (you may either provide ads or assign students to bring in their own ads). Place students into groups based on the nature of their ads. You may use some combination of the following groups:

Hard Alcohol	Beer	Wine
Cigarettes	Chewing Tobacco	Energy Drinks
Diet Pills	Sleeping Aids	

Students are encouraged to meet with others who have advertisements on the same drug. These groups meet in different "corners" (or areas) of the room. Student can share and discuss their ads looking for commonalities in how the drug is marketed. Have a spokesperson from the group report the findings to the rest of the class. As an additional assignment, ask students to generate an advertisement for an illegal substance. This exercise illustrates how advertising influences our perceptions of psychoactive drugs. It becomes clear that certain drugs are marketed to certain age groups, and are marketed in such a way that we don't even think of these substances as drugs.

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39) Sleep Needs

Purpose: Students discuss typical and atypical sleep requirements
Learning Structure: Line-ups
Time: 5-10 Minutes
Class Size: Appropriate for smaller class sizes

Description: This flexible exercise allows students to compare the sleep needs of human and animals. One way to do this is to have students estimate the amount of sleep they need to be fully rested each night. Their estimates should be in half hour increments (e.g., 6 ½ hours, or 9 hours). Students should order themselves and find their exact place in line. You may want to tape numbers to the floor ranging from 5 – 10. Students will be able to see that the majority of the class needs between 7-8 hours of sleep. However, there are some students who are short sleepers, and others that are long sleepers. While not as common, needing more or less sleep is completely normal. An alternative exercise is to pass out a piece of paper to each student with the name of an animal and the average amount of sleep that animal needs. Make sure to include the human animal! Students should order themselves and find their exact place in line. This exercise shows that humans need a moderate amount of sleep compared to other animals. You can call on students at the ends of the line to talk about animals that need lots of sleep or very little sleep.

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40) Dream Analysis

Purpose: Students learn about dream interpretation and discuss Freud's theory
Learning Structure: Teacher-Student Review
Time: 15 minutes across two class periods
Class Size: Appropriate for most class sizes

Description: This exercise on dream analysis can be done in several ways. The first step is to have students write down a dream they've had (manifest content). They should give their dream to a partner for analysis (latent content), using Freud's theory of dream interpretation. You can either have partners take the dream home with them and research the hidden meaning on the Internet, or you can provide materials for students to analyze the dream in class. Students return to their partner with the analysis. This exercise can be a good segue into a discussion about Dream Interpretation. What are the limitations

of Freud's theory? Why aren't his ideas as popular with professionals today? Were students surprised by anything in the analysis?

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Activity	Learning Structure
41) Critical Thinking	Ticket-In/One-Minute Papers
42) Controversies in Learning	Valley of Values/Lines/Sign
43) Classroom Norms	Think-Pair-Share
44) Student Rats	Role Play
45) Classical Conditioning in the Movies	Poker Faced Participation
46) Schedules of Reinforcement	Roll the Dice
47) Operant Conditioning	Jeopardy
48) Learning Theory in Everyday Living	Jigsaw
49) Associative Learning in Advertising	Roundtable
50) Computer Exploration	Group Investigation

41) Critical Thinking

Purpose: Students complete a brief one-minute assignment that involves critical thinking, personalizing, or deeper processing of information
Learning Structure: Ticket-In/One-Minute Papers
Time: 1-5 minutes
Class Size: Appropriate for any class size

Description: Students are given a couple minutes to answer a question posed by the instructor. These assignments can be used in a variety of ways – to verify attendance, to start discussion, to assess student knowledge, and to provide opportunities for critical thinking. Sample assignments are provided below:

     1. Punishment. How was punishment used in your home? Were your parents more likely to give you something bad (e.g., spanking) or take away something good (e.g., removing privileges)? What factors might explain your parent's choices?
     2. Learning. Name a skill that you learned easily and quickly. How did you learn this skill? Why do you think it was easy to learn? Now think of a skill that was difficult to learn. Why was this skill difficult to learn?
     3. Reinforcers. Identify some of the primary and secondary reinforcers in your life. What rewards motivate you most?
     4. Phobias. Do you have any phobias? How has classical conditioning played a role in these phobias? Can you think of a way to use classical conditioning to reverse your phobia?
     5. Learned Helplessness. Have you ever experienced learned helplessness? Explain.

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42) Controversies in Learning

Purpose: Students have a chance to think about, debate, and discuss controversial topics in learning.
Learning Structure: Valley of Values/lines/signs
Time: 15 minutes
Class Size: Appropriate for most class sizes.

Description: Using one of the learning structures for controversies – Corners, Structured Controversy, Valley of Values, Value Signs, or Value Lines, the instructor poses controversial questions to the class. Students share their answers and contribute to further class discussion. Here are some controversies in learning:

- Corporal punishment is an effective tool for teaching children
- Everyone is capable of learning
- People who watch violent television programs learn to become violent adults
- You can't teach an old dog new tricks
- Is kissing a learned behavior?

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43) How do we learn classroom norms?

Purpose: Students explore the different forms of learning
Learning Structure: Think-Pair-Square
Time: Approximately 10 minutes
Class Size: Appropriate for most class sizes

Description: Ask students to generate as many of the implicit norms or rules for "classroom behavior" as they can. These include things like facing forward at all times, sitting in chairs at desks, staying quiet when the instructor is talking, raising your hand when you want to speak, exiting when the bell rings, etc. How did students learn these classroom norms? Responses to this question can be used to illustrate the different forms of learning. Many of these norms are learned through direct observation. Some norms, such as raising your hand before speaking, may have been reinforced through successive pairings of hand-raising with the teacher's attention. Some norms may have been reinforced through rewards and punishments from other students (as when other students respect you for being able to understand what is going on). Some of these norms are learned cognitively by reading the syllabus. Others are learned because they are reinforced by the teacher's attention or peer approval. It might be interesting to ask the students about norms that develop in classrooms that are inconsistent with their own academic goals. For example, what do they do if someone starts talking to them or sending them notes during lecture? Sometimes, a handful of students are effective in developing anti-academic norms that undermine the ability of the rest of the students to get the most out of their education by being rude and disruptive in class. After students have had a few minutes to generate their responses, have them pair with another student to share their answers. Finally, have the pairs get together with another pair (square) to discuss answers.

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44) Shaping Student "Rats" in the Classroom

Purpose: To demonstrate the technique of shaping
Technique: Role Play
Time: Approximately 15 minutes
Class Size: Appropriate for any class size

Description: This activity can be done in cooperative learning teams. Assign one member of each 4 person team to be the "rat" (if you have enough time, each person can have a chance to play the "rat"). The other three team members are the "scientists." The goal of the assignment is for the "scientist" to shape the "rat's" behavior. Start by having all of the "rats" leave the classroom for a few minutes. It's important that they aren't aware of the behavior that will be shaped. With the remainder of the class, select a particular location that the "rats" must go to, and a particular behavior. For example, the class may decide that the "rats" must go to the board and write something, or those they must go to their desk and pick up their textbook. Once a behavior has been selected, the "rats" are then called back into the classroom and asked to sit with their team. The object for each team is to get their "rat" to complete the behavior by rewarding successive steps. Each "rat" must listen to their teammates for rewards and punishments. When you say "go," the "rats" should begin to move about the room. When the "rat" makes movements towards the desired behavior the team rewards the rat by saying "good." If the rat makes movements away from the desired behavior the team can punish the rat by saying "bad." This activity is similar to the children's game "hotter and colder" that many students are familiar with. After the "rats" have all been successful at completing their desired behavior, you can discuss shaping in more detail. There are a lot of variations that can be done with this shaping exercise. For example, you could send teams out of the classroom and have the "scientists" use shaping to get the "rats" to reach a particular location on campus. You can also generate some friendly competition between teams by starting each "rat" at the same time and seeing which team of scientists can "shape" their rats behavior the quickest! If time permits, each person in the team can have the opportunity to be a "rat."

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45) Classical Conditioning in the Movies

Purpose: To reinforce the core concepts of associative learning
Learning Structure: Poker-faced Participation
Time: Flexible --Anywhere from 10 – 30 minutes
Class Size: Appropriate for most class sizes

Description: This activity works well if you begin with your own example before asking students to generate examples. Start by having students close their eyes and imagine an ocean scene. You can read the following passage:

> *You are at the beach with your family. It's warm outside. You can feel the sun on your face, and you can smell the salty air. You decide to take a dip in the ocean. The water is cool and you paddle out 50 yards. All of a sudden you get a very funny feeling......*

At this point play a clip of music from the movie *Jaws*. Students will usually begin to laugh. When asked, students will say that they are thinking of the shark from the movie *Jaws*. The movie producers have conditioned us to be afraid when we hear the music by consistently pairing it with bloody shark-

attacks. Now ask students to generate their own examples of classical conditioning in the movies. These examples may include famous lines that we associate with certain movies, particular characters, songs, or symbols. Call on students to say/sing etc. the conditioned stimulus in their example for the rest of the class. The rest of the class tries to guess. Both the person giving the example, and the first person to guess correctly receive playing cards. Play continues until you decide to end the activity, or until students run out of examples. At that point individual students (if you have a small class), or teams of students (if you have a large class) try to make the best poker hand they can. You can reward the winner with a prize or extra credit points.

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46) **Schedules of Reinforcement**

<u>Purpose</u>: To familiarize students with the four schedules of reinforcement
<u>Technique</u>: Numbered Heads Together
<u>Time</u>: Takes approximately 15 minutes
<u>Class Size</u>: Appropriate for most class sizes

<u>Description</u>: Distinguishing between the various schedules of reinforcement can be confusing for some students. Providing real life examples of reinforcement schedules can be a useful pedagogical aid. Below is a list of situations involving fixed-interval, fixed-ratio, variable-interval, and variable-ratio schedules. For a lively activity, put students into cooperative teams of four. Assign each student in the team to a different schedule:

> Student A: fixed ratio
> Student B: fixed interval
> Student C: variable ratio
> Student D: variable interval

Next, read each of the sample situations out loud to the class. Give the teams a moment to discuss the answer, and then have their team member assigned to the correct schedule stand up. For example, if you call out "deep sea fishing," each team should have student "D" stand up. All of the student D's from each team should be standing. You can then use the numbered heads together technique to call on one of the "D's" to justify their answer. You may also want to ask them if the given situation involves rewards based on time vs. performance, or fixed vs. variable ratios and intervals.

1. Deep Sea Fishing
2. A cat who gets fed morning and night
3. Playing a Slot Machine
4. A baby-sitter who gets a flat fee per day
5. A minimum wage job
6. Calling the theater to check the show times
7. A picker who gets paid by the box
8. Playing Bingo
9. An artist who gets paid for each piece completed
10. A model who gets paid by the hour
11. A student checking their e-mail daily
12. Quail Hunting

13. Russian Roulette
14. A dog gets a biscuit for "sitting"

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47) Operant Conditioning

Purpose: Students have the chance to work through Pavlov's Classical Conditioning framework
Technique: Jeopardy
Time: Approximately 15 minutes
Class Size: Works best with class sizes under 50

Description: For this activity, you will need to make photocopies of the four scenarios ahead of time. Make a copy of each scenario for each group in your class. You may also want to bring in pencils, candy, or some other small reward to give to the winning team.

Divide your class into groups of 3 to 5 students. Have groups select a student to be the "runner" for their group. Runners will be responsible for carrying questions back and forth between the instructor and their group. The goal of the game is for each team to work through the four scenarios on the next page. Play starts when the instructor gives each runner a copy of scenario #1. The runner takes the question back to their team and the group works together to fill in the answers quickly. The runner then takes the question back up front for the instructor to check. If the answers are correct, the team gets a point, and is allowed to move on to the second question. If the answers are wrong, the team must continue working until they have the correct answers. Play ends when one team successfully completes all four questions. The content of this game reinforces classical conditioning principles. Students who may not have completely understood the major elements of classical conditioning will have a much better understanding of the concepts once they have completed this exercise. The structure of this game can also be used to introduce operant conditioning. We are often motivated to compete for rewards, and teams are likely to work quickly if they know that they will be positively rewarded with "points" or candy, etc.

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Learning Jeopardy Scenarios

1. Baby Abigail cries every time the camera flashes because the bright lights are startling and uncomfortable. Now simply the sight of any camera will start her crying.
Unconditioned Stimulus: _____ Unconditioned Response: _____
Conditioned Stimulus: _____ Conditioned Response: _____

2. Jim is having a tough time at work. His job is very stressful and he doesn't get along well with his boss. He feels sick to his stomach during these stressful situations at work. Recently, Jim has noticed that as soon as he walks to the front door of the building he works in, his stomach begins to hurt.
Unconditioned Stimulus: _____ Unconditioned Response: _____
Conditioned Stimulus: _____ Conditioned Response: _____

3. Carl had an unpleasant experience at a party when he drank too much tequila. He ended up spending the next 24 hours vomiting in the bathroom, and feeling badly. The following week at another party, the host offered him a shot of tequila. Now, simply the mention of tequila made Carl feel nauseated.
Unconditioned Stimulus: _____ Unconditioned Response: _____
Conditioned Stimulus: _____ Conditioned Response: _____

4. Two year-old Carlos accidentally fell into a pool at a party and became very frightened under the water when he was unable to breathe. Since the party, he becomes scared and cries anytime he sees a pool.
Unconditioned Stimulus: _____ Unconditioned Response: _____
Conditioned Stimulus: _____ Conditioned Response: _____

Answer Key:
1. US: bright light   UR: Discomfort/Crying   CS: camera   CR: Crying
2. US: stress   UR: Stomach Pain   CS: work building   CR: Stomach Pain
3. US: vomiting   UR: Nausea   CS: Mention Tequila   CR: Nausea
4. US: Trapped   UR: Fear   CS: Sight of pool   CR: Fear

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48) Learning Theory in Everyday Living

Purpose: Students discuss the practical applications of learning theory
Learning Structure: Jigsaw
Time: 30 minutes of research outside of class, 15 minutes for in-class discussion
Class Size: Appropriate for most class sizes

Description: This exercise allows students to examine some practical applications of learning theory. The principles of operant conditioning and classical conditioning have been used extensively to help people. Using a jigsaw technique, assign each member of a 4-person team to a different application. You can either assign students to one of the examples below and have them explore in detail the learning principles operating in these situations, or have them come up with their own example. Either way, have students spend about 30 minutes outside of class time working on their assigned application. Then, in class, use one of the jigsaw techniques to allow students to share and teach others.

1. Alcohol Aversion Therapy. Classical conditioning principles have been used with recovering alcoholics. The drug anatabuse, when paired with alcohol, will cause a person to become violently ill. Over time, this constant pairing of alcohol with illness is hoped to decrease alcohol use. Even after the drug is no longer used, simply the sight or smell of alcohol may be enough to keep the person from desiring alcohol.
2. Guide Dogs. Guide dogs have been trained to help the disabled to function fully in the world. These guide dogs are trained using the principles of operant conditioning. Through a series of shaping, reinforcement, and punishment, the guide dogs learn to engage in a variety of complex behaviors.
3. Weight loss clinics. Many of the popular dieting centers and clinics use operant conditioning principles. For example, shaping is often used to reward smaller weight loss increments leading up to the desired weight. Financial incentives are offered as tools of reinforcement.

4. <u>Token Economies</u>. The use of token economy reward systems have been effective in mental institutions to change behavior. Positive behaviors are rewarded with tokens, and negative behaviors are punished by the removal of tokens. Patients can use the tokens to buy candy or time for special events.

5. <u>Parenting</u>. Most parents use a variety of operant conditioning principles to mold the behavior of their children. Positive reinforcement, negative reinforcement, punishment, and shaping are common.

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49) Associative Learning in Advertising

<u>Purpose</u>: Students generate examples of associative learning in their everyday lives
<u>Learning Structure</u>: Roundtable
<u>Time</u>: Approximately 15 minutes
<u>Class Size</u>: Appropriate for most class sizes

<u>Description</u>: Give each student a stack of 3 x 5 index cards, or small sheets of scratch paper to write/draw on. Explain to students that classical conditioning principles are often used by advertisers who want to associate their product with either a specific symbol or a positive feeling. For example, McDonald's hamburgers have been consistently paired with the Golden Arches' symbol. Advertisers are hoping that their product will be both valued and remembered through these learned associations. Using the roundtable method, have the first member of the team draw a picture or write a slogan for a product. For example, the student might draw a mechanical bunny. Like the game "pictionary," other students try to guess the product. When someone gets the answer, in this case "Energizer," it's the next students turn to think of an association and draw/write. Play continues in this fashion for several rounds, or until team members can no longer generate advertising examples. This exercise can be used to clearly illustrate how much we have been classically conditioned to think about these products.

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50) Computer Exploration

<u>Purpose</u>: Students brainstorm different techniques and methods of learning
<u>Technique</u>:   Group Investigation
<u>Time</u>: Approximately 30 minutes outside of class and 15 minutes in class
<u>Class Size</u>: Appropriate for most class sizes

<u>Description</u>: There are many websites that are dedicated to improving learning and memory. Students can learn a variety of aids to improving learning and memory including "accelerated learning," "lateral thinking" and "creative enhancement." Have each student in the team spend approximately 30 minutes surfing the web for the best techniques for improving learning. Then, when students return to class, have them share what they learned with their team and have the team come up with a list of the five best techniques for improving learning and discuss whether they reflect the principles of classical conditioning, operant conditioning, or cognitive learning. The teams can then present their information to the rest of the class in written or oral form.

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Memory

Activity	Learning Structure
51) Critical Thinking	Ticket-In/One-Minute Papers
52) Controversies in Memory	Valley of Values/Lines/Signs
53) Memory Networks	Affinity Diagram
54) Memory Distortion	Class Participation
55) Mnemonics	Mix-Pair-Freeze
56) Interference	Roundtable
57) Serial Position Effect	Think-Square-Share
58) Forgetting	Jigsaw

51) Critical Thinking

Purpose: Students complete a brief one-minute assignment that involves critical thinking, personalizing, or deeper processing of information
Learning Structure: Ticket-In/One-Minute Papers
Time: 1-5 minutes
Class Size: Appropriate for any class size

Description: Students are given a couple minutes to answer a question posed by the instructor. These assignments can be used in a variety of ways – to verify attendance, to start discussion, to assess student knowledge, and to provide opportunities for critical thinking. Here are some examples:

1. Tip-of-the-tongue phenomenon. Have you ever had an experience where you were unable to recall information that seemed to be on the tip of your tongue? Explain the incident. What were you trying to recall? Were you eventually able to recall the information? What cues were helpful in recalling the information?

2. Earliest memory. What is your earliest childhood memory? What age were you? Does your early memory involve a transition (e.g., birth of a sibling), a trauma (e.g., accident or operation), or trivia (e.g., a certain toy, sitting on the porch)? Is your memory a visual image or does it involve other sensory experiences?

3. Analyzing your memory. How would you rate your own memory skill? What are your strengths and weaknesses? For example, do you have an easy or difficult time remembering names? faces? numbers? directions? childhood memories? When memorizing information for an exam, what methods do you use to help you store the information in memory and retrieve it during exam time?

4. Implicit memories. List some examples of implicit memories from your own life. What evidence do you have that these memories are outside of your awareness?

5. Flashbulb memory. Describe a memory that is especially vivid for you. What senses are involved in this memory? Did you experience strong emotions during the original event? Why would you characterize this memory as a flashbulb memory?

6. Memory storage. Give an example from you own experiences of procedural, declarative, episodic, and semantic knowledge. What are the differences between these types of knowledge?

7. Measuring memory. Which type of memory test is easier -- recognition or recall? Why? What type of memory test would a multiple choice exam be considered? How about an essay test? Explain.

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52) Controversies in Memory

Purpose: Students have a chance to think about, debate, and discuss controversial topics in Memory.
Learning Structure: Valley of Values/lines/signs
Time: 15 minutes
Class Size: Appropriate for most class sizes

Description: Using one of the learning structures for controversies – Corners, Structured Controversy, Valley of Values, Value Signs, or Value Lines, the instructor poses controversial questions or statements to the class. Students share their answers and contribute to further class discussion. Here are some controversies from the area of Memory:

- Our childhood memories are accurate
- It is possible to repress memories such as those of child abuse
- Eyewitness testimony should be used in the courtroom
- It is possible to improve our memories substantially with training
- Gender and culture greatly influence our memory
- Buying books on how to improve your memory is a waste of money

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53) Memory Networks

Purpose: Students learn how information in long-term memory is organized and stored
Learning Structure: Affinity Diagrams
Time: Approximately 15 minutes
Class Size: Appropriate for smaller class sizes

Description: The instructor begins with a brief introduction to associative networks and organization in long-term memory. Divide the class into teams of 3-5 students. Instruct each team member to write down the names of 10 household objects -- using one post-it/sticky sheet per item. Have team members stick their post-it notes to a work surface so that all team member can see and reach them. Students then work silently to construct an affinity diagram. That is, they physically manipulate the post-its, grouping them into categories. If a student disagrees with the placement on an item, or wants to make a new category they may rearrange the post-its. Continue the activity until the group is satisfied with their arrangement. Have team members discuss their decisions for grouping information the way they did. What rules did they use to group the information? Did they group the information according to the room of the house that you would find this object in? Or, the function of the object? We store memories in organized groups or categories of information similarly to the affinity diagram. However, the affinity diagram is limited to separating information into different categories and doesn't allow for dual category membership or connections between categories. Have students discuss how the items in one of their categories may be tied to items in another. For example, a scissors may be stored as both a "bathroom object" (e.g., nail scissors) and an "office object" (e.g., in the desk drawer), illustrating the "associative network" concept. You may want students to reorganize the household items according to different themes and categories, noting different way that information can be stored in memory.

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54) Memory Distortion

Purpose: This exercise is an amusing demonstration of memory distortion
Learning Structure: Class Participation
Time: Approximately 15 minutes
Class Size: Appropriate for most class sizes

Description: A great illustration of memory distortion is to play a brief game of "telephone." Begin by whispering a secret message such as the following one to a student seated at the front of the class:

> *We were going to talk about memory today, but I'm not feeling very well. I woke up this morning with a strange rash and shooting pain in my lower leg. I have asked a very humorous graduate assistant in experimental psychology to give the lecture instead. For your homework assignment I would like you to comment on how well you liked the guest lecture.*

The students must recall the message from memory and pass it on to the person next to them. The game continues in this fashion until the last person receives the message. The last person says the message out loud to the class. As you might expect, the final message is often much different from the original message. The telephone game is an excellent example of memory distortion, the idea that memories are constantly undergoing construction. Ask students why they think the final message was so different from the original message? They are likely to bring up many factors relating to the memory processes -- difficulty in hearing (encoding failure), bringing one's own life experiences and context to creating and organizing memories, and difficulty with recall.

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55) Mnemonics

Purpose: Students generate mnemonic strategies for course concepts
Learning Structure: Mix-Pair-Freeze
Time: Approximately 15 minutes
Class Size: Appropriate for most class sizes

Description: Students are given a set of concepts from the memory chapter. Their task is to create a mnemonic device to aid in the memory and retrieval of that concept. Students may use acronyms, visual imagery, or develop their own creative techniques. In order to save time, students can create their mnemonics at home and bring them to class. In class, students use the mix-pair-freeze technique to share mnemonics with each other. At the end of the activity, the instructor can call on students to share their favorite mnemonics. For a large class alternative, students can share their mnemonics with a partner, or collect the mnemonics as a ticket-in and compile a list of the mnemonics to create a study guide/handout for the class.

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56) Interference

Purpose: Students generate and discuss examples of proactive and retroactive interference
Learning Structure: Roundtable
Time: 10 minutes
Class Size: Appropriate for most class sizes

Description: Students are given 5 minutes to write down as many examples of interference as possible. Some should be situations in which old information has interfered with new (retroactive interference) and others in which new information has interfered with retrieving old (proactive interference). Students then meet in teams, and using the roundtable students take turns reading an item from their list. Teammates try to guess whether the example is proactive or retroactive. For large classes, you may ask students to partner and share their lists with a neighboring student.

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57) Serial Position Effect

Purpose: Students replicate research on the serial position effect
Learning Structure: Think-Square-Share
Time: 10 minutes
Class Size: Appropriate for smaller class sizes

Description: The serial position effect refers to the tendency to remember items at the beginning and end of a list more easily than items in the middle of a list. The instructor begins by giving students a memory test. The instructor reads a list of 15 food items, and then students write down as many as they can recall. Explain that the items do not have to be remembered in any particular order, students should simply attempt to remember as many as possible. Read the following list of food items slowly:

> limes, eggs, crackers, vanilla, radish, ketchup, soup, cereal, peas, syrup, cheese, potato, pork, carrots, yogurt

After presenting the list have students immediately write down as many items as they can recall. Allow students about two minutes for this task. Now, using a handout, power point, or the board, write the name of the 15 food items. Students meet in teams and tally up how many remembered each item. After all the correct responses are recorded students should start to see a pattern emerge – better recall for items at the beginning and the end of the list. You may also want to call on teams to share their answer and compile results for the whole class. This activity is an excellent introduction to the serial position effect.

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58) Forgetting

Purpose: Students investigate the different causes of forgetting
Learning Structure: Jigsaw
Time: 20 minutes
Class Size: Appropriate for smaller class sizes

Description: Each team member is assigned to a different cause of forgetting:

- Decay and Distortion
- Consolidation Failure
- Interference
- Motivated Forgetting

Students gather information on their assigned topic outside of class. Back in class, students meet with others assigned the same topic in expert groups. Then, they return to their home group to teach their topic to their teammates.

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Cognitive Processes

59) Critical Thinking

Purpose: Students complete a brief one-minute assignment that involves critical thinking, personalizing, or deeper processing of information.
Learning Structure: Ticket-In/One-Minute Papers
Time: 1-5 minutes
Class Size: Appropriate for any class size

Description: Students are given a couple minutes to answer a question posed by the instructor. These assignments can be used in a variety of ways – to verify attendance, to start discussion, to assess student knowledge, and to provide opportunities for critical thinking. Here are some examples:

1. Expertise. Name an area in which you have expertise. How did you gain expertise in this area? What sort of training did you undertake to become an expert?
2. Heuristics. Short-cuts used in problem solving are called heuristics. Can you think of any heuristics you use to solve daily problems such as finding a parking space on campus? How did you develop these heuristics? Are they based on past experience?
3. Aha. Have you ever had an "aha" experience. Describe it.
4. Incubation period. Have you ever been able to solve a problem only after leaving it for a while? What problem were you trying to solve? Explain what happened.
5. Standardized Tests. Have you ever taken a standardized test such as an achievement or aptitude test? Describe the test you took. In what context did you take the test – educational setting, occupational setting, personal interest? Did you think the test was a good measure of your abilities? Why or why not?

60) Controversies in Cognition

Purpose: Students have a chance to think about, debate, and discuss controversial topics in Cognition.
Learning Structure: Valley of Values/lines/signs
Time: 15 minutes
Class Size: Appropriate for most class sizes

Description: Using one of the learning structures for controversies – Corners, Structured Controversy, Valley of Values, Value Signs, or Value Lines, the instructor poses controversial questions to the class.

Students share their answers and contribute to further class discussion. Here are some controversies in cognition:

- If you work hard you can increase your intelligence
- Selecting sperm donors based on IQ scores is a good idea
- Skills like art and music should be included in the definition of intelligence
- Standardized tests are helpful in making educational decisions
- Gifted children should be separated from their peers in our educational system
- Intelligence is primarily genetic

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61) Mental Maps

Purpose: Students discuss the role of mental images in cognition
Learning Structure: Think-Pair-Share
Time: 15 minutes
Class Size: Appropriate for most class sizes

Description: Students are given 5 minutes to draw a map of the campus from memory. They should include as many details as possible such as the names of buildings, the locations of fields and parking lots, etc. Next, students pair with a partner and share their maps. Most students will have used mental images to complete this task, visually "walking through" the campus in their mind. What can account for the differences between the maps? Past experiences? Perceptual distortions? This activity is a nice introduction to the topic of mental imagery and mental maps. This strategy is used on a daily basis to help us do things like remember where we parked our car.

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62) Defining Intelligence

Purpose: Students work with others to generate a definition of intelligence
Learning Structure: Group Definitions
Time: 10 minutes
Class Size: Appropriate for smaller class sizes

Description: Each students is given a few minutes to write down their definition of intelligence. Team members compare their definitions. Then the team creates a new definition of intelligence that incorporates the elements mentioned in the individual definitions. Teams share their groups' definition with the class. This activity gets students thinking about what should be included in the definition of intelligence, but also highlights the difficulty scientist have in agreeing on a definition of intelligence.

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63) Problem Solving

Purpose: Students discuss the steps involved in problem solving
Learning Structure: Think-Square-Share
Time: 15 minutes
Class Size: Appropriate for most class sizes

Description: The instructor provides teams of students (or individuals if your class is large) a brainteaser. Brainteasers can be easily found on the Internet. Give students a couple minutes to think about the problem and generate possible answers. Have students share both their answer and the process they went through to arrive at their answer. This activity can begin a larger class discussion on the stages of problem solving.

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64) Testing Creativity

Purpose: Students complete a test of creativity and discuss functional fixedness
Learning Structure: RoundRobin
Time: 10 minutes
Class Size: Appropriate for most class sizes

Description: Several of the most common tests of creativity require a person to name as many uses as they can for a common household object (e.g., paperclip) in two minutes. You can have students replicate these tests by working in teams, using the RoundRobin format, or if you have a large class, students can work individually. You will need to bring in a few common household objects such as a paperclip, baseball cap, orange, teacup, etc. Give students 2 minutes to generate as many uses for the object as possible. Creativity is the ability to go beyond functional fixedness and see uses for the objects that are not commonly considered. Rather than seeing a pad of paper for writing, the creative person may see that the pad of paper can be used to prop open a door. The average number of creative uses for these objects is 4-8. This activity can be used to discuss creativity and functional fixedness. Do you think creativity can improve with practice?

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65) Gardner's Multiple Intelligences

Purpose: Students discuss the different types of intelligence
Learning Structure: Talking Chips
Time: 15 minutes
Class Size: Most Appropriate with small classes

Description: Students should think of a celebrity that is a good example of one of Gardner's types of intelligence. For example, a student could choose Oprah Winfrey as an example of Linguistic Intelligence. When a student has shared, they place their talking chip on the table. The next student who

shares must pick a celebrity and type of intelligence that has not yet been discussed. Students may not share again until all team members have taken a turn and placed their chips on the table.

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66) Prototypes

Purpose: Students classify colors according to prototypes and atypical examples
Learning Structure: Semantic Webbing
Time: 15 minutes
Class Size: Appropriate for smaller class sizes

Description: The instructor provides each team of students with a box of 64 crayola crayons. Students are instructed to choose eight crayons that represent the most basic or prototypical colors. The students silently categorize the remaining crayons ordering them from most typical to least typical examples of each prototype. Teams may then discuss the placement of colors. Students will find that it is more difficult to categorize the crayons that are farther from the prototypes. This activity is a good introduction to a discussion of prototypes. You may also discuss the role of culture and language in cognition. For example, while the English language contains over 3,000 words for colors, a few tribes in New Guinea and the Philippines have only 2 and 4 terms respectively!

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Motivation and Emotion

Activity	**Learning Structure**
67) Critical Thinking	Ticket-In/One-Minute Papers
68) Controversies in Motivation	Valley of Values/Lines/Signs
69) Maslow's Hierarchy of Needs	Semantic Webbing
70) Motivational Conflicts	Think-Square-Share
71) Evaluating Diet Plans	Gallery Walk
72) Physique Preferences	Team Consensus
73) Universal Facial Expressions	Discussion with Talking Chips
74) Murray's Taxonomy of Needs	Jigsaw

67) Critical Thinking

Purpose: Students complete a brief one-minute assignment that involves critical thinking, personalizing, or deeper processing of information
Learning Structure: Ticket-In/One-Minute Papers
Time: 1-5 minutes
Class Size: Appropriate for any class size

Description: Students are given a couple minutes to answer a question posed by the instructor. These assignments can be used in a variety of ways – to verify attendance, to start discussion, to assess student knowledge, and to provide opportunities for critical thinking. Here are some examples:

1. Achievement. How would you characterize your need for achievement – high, moderate, or low? What factors have influenced your level of need folr achievement?
2. Polygraph testing. Are you a good "lie detector"? In other words, can you tell when someone is telling a lie? What cues do you look for?
3. Types of motivation. What did you do in the hour before you came to class? What was your motive for engaging in that behavior? Would you classify your motive as biological? Social? Achievement-related? Explain.
4. Incentives. Name some incentives (external rewards) that have a powerful effect on you. What incentives do you work for in your daily life (e.g., grades, paycheck)?
5. Sensation seeking. Would you consider yourself high or low in sensation seeking? What factors have influenced your level of sensation seeking?

68) Controversies in Motivation

Purpose: Students have a chance to think about, debate, and discuss controversial topics in sex and gender.
Learning Structure: Valley of Values/lines/signs
Time: 15 minutes
Class Size: Appropriate for most class sizes

Description: Using one of the learning structures for controversies – Corners, Structured Controversy, Valley of Values, Value Signs, or Value Lines, the instructor poses controversial questions to the class.

Students share their answers and contribute to further class discussion. Here are some controversies involving motivation and emotion:

- Humans are motivated by their instincts
- Weight Control is all about willpower
- Polygraph testing should be used as evidence in the courtroom
- Animals experience emotion in the same way humans do
- Being intrinsically motivated by something is better than extrinsic

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69) Maslow's Hierarchy of Needs

Purpose: Students review and discuss Maslow's Hierarchy of Needs
Learning Structure: Semantic Webbing
Time: 15 Minutes
Class Size: Most appropriate for smaller classes

Description: Students are given 3-4 minutes to brainstorm individually. They should write down examples of motivations and record them on individual scraps of paper or sticky notes. Next, students read their answers aloud and stick their notes to the table. Third, team members silently order the ideas according to Maslow's Hierarchy of Needs. Finally, teams discuss the categories and whether any responses need to be moved.

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70) Motivational Conflicts

Purpose: Students review the three types of conflict based on approach and avoidance behavior.
Learning Structure: Think-Square-Share
Time: 15 minutes
Class Size: Most appropriate for smaller classes

Description: This exercise is a review of the three types of motivational conflicts – approach-approach, avoidance-avoidance, and approach-avoidance. Students are given 5 minutes to come up with some everyday examples of motivational conflicts. (e.g., "Nikki is very excited to receive an invitation to what promises to be the party of the year. Unfortunately, she fears that she will run into her old ex-boyfriend at the event"). Students meet in teams and share their lists. The other team members try to identify the motivational conflict illustrated in each example. The instructor can call on students to share their lists as well.

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71) Evaluating Diet Plans

Purpose: Teams discuss the physiology and psychology of popular diet plans
Learning Structure: Gallery Walk
Time: 30 minutes
Class Size: Most appropriate for small classes

Description: Each team is assigned to a commercial diet plan (e.g., Jenny Craig, Weight Watchers, etc).
You can either have team members bring in materials from outside of class, or you may want to provide
teams with information on their assigned plan. Teams have 15 minutes to examine their information and
create a poster (or you can use butcher paper) outlining the main components of the diet plan. Ideas
should be categorized according to the physiology of hunger vs. the psychology of hunger. Students
should discuss whether this is a healthy plan. Students may want to consider the following:

- Describe the major components of the diet plan
- Evaluate the effectiveness of the program from a physiological perspective
- Evaluate the effectiveness of the diets from a cognitive perspective
- Evaluate the effectiveness from a sociocultural perspective
- What type of person would find this diet most appealing?
- Is this diet healthy? Why or why not?

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72) Physique Preferences

Purpose: Students examine gender differences in ideal physiques
Learning Structure: Team Consensus
Time: 20 minutes
Class Size: Appropriate for smaller class sizes

Description: Students work in same-gender teams. The instructor may provide pictures of different male
and female physiques, or may provide teams with magazines and allow the students to select physiques.
In either case, teams should view the same pictures. Students are asked to select the picture that best
represents the ideal male and female physique. Teams then present their choices to the class. There are
several different uses for this activity. You will probably find that males prefer a female body type that is
heavier than what females select. There may be greater consensus across the genders on what an ideal
male physique looks like. You may also want to look at what qualities make for an ideal male or female
physique (e.g., muscles vs. thinness). You may want to talk about the problems associated with the
pressure to achieve an ideal body type (e.g., steroid use, eating disorders). This exercise can be used to
open up a discussion on eating disorders, universal standards of beauty, and gender differences in body
image.

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73) Universal Facial Expressions

Purpose: Students identify the 6 universal facial expressions
Learning Structure: Discussion with Talking Chips
Time: 10 minutes
Class Size: Appropriate for smaller classes
Description: Student work in teams. The Instructor deals each student a stack of index cards or scraps of paper with the following facial expressions:

Happiness	Love	Confusion
Sadness	Pride	Anger
Jealousy	Disgust	Fear
Annoyance	Surprise	Relief

Students take turns drawing a card and making the facial expression. Team members try to guess the facial expression. Using the cards as a talking chip, students take turns until everyone has "played" all their cards. Teams should discuss which facial expressions were easier to read than others. Students try to guess which 6 facial expressions are universal across cultures. You may ask students to record their accuracy for each expression and do a frequency distribution for the student scores. Students will see that the universal facial expressions are more easily recognizable.

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74) Murray's Taxonomy of Needs

Purpose: Students find and discuss advertisements that illustrate Murray's Taxonomy of Needs
Learning Structure: Jigsaw
Time: 10 – 15 minutes
Class Size: Appropriate for most class sizes
Description: There are several ways to do this activity on Murray's taxonomy of needs. One way is to provide each team of students with a stack of magazines (or ask students to bring in a magazine). Assign each student to one of Murray's needs:

Need for affiliation
Need for approval
Need for achievement
Need for power

Students should find an advertisement that plays on one of these four basic motives. Student should present their ads to their teammates. Teammates can discuss how these motives are used to sell products. For large classes, you can ask students to partner and work together to find examples of all four motives, or you may ask individual students to bring in an example of each type of motive. A doc-cam or opaque projector can be used to display the ads to the larger class.

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Developmental Psychology

Activity	Learning Structure
75) Critical Thinking	Ticket-In/One-Minute Papers
76) Controversies in Development	Valley of Values/Lines/Signs
77) Piaget's Stages	Role Play
78) Designing a Daycare	Gallery Walk
79) Moral Development	Pairs Check
80) Stereotypes and Aging	RoundRobin
81) Erikson's Stages	Line-ups
82) Death and Dying	Surround the Expert

75) Critical Thinking

Purpose: Students complete a brief one-minute assignment that involves critical thinking, personalizing, or deeper processing of information
Learning Structure: Ticket-In/One-Minute Papers
Time: 1-5 minutes
Class Size: Appropriate for any class size

Description: Students are given a couple minutes to answer a question posed by the instructor. These assignments can be used in a variety of ways – to verify attendance, to start discussion, to assess student knowledge, and to provide opportunities for critical thinking. Here are some examples:

1. Identity formation. Who had the biggest influence on your sense of self during adolescence? How did this person(s) contribute to your identity formation?
2. Death and dying. Write your own obituary. If you were to die today, how would people describe your life?
3. Cohort. Consider your cohort, the group of people who are your same age. What historical and cultural events may influence people in your cohort differently from other cohorts? How might cohort differences create problems for developmental researchers?
4. Moral development. Think of a time when you were faced with a moral dilemma. What was the dilemma? What did you decide to do? What factors influenced your decision?
5. Death and dying. Would you want to know right now the age at which you're going to die? Why or why not? Would you live your life differently if you knew you had limited time left? Explain.
6. Midlife crisis. What do you think it means to have a midlife crisis? Do you think everyone goes through this? What do you think causes a midlife crisis?

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76) Controversies in Development

Purpose: Students have a chance to think about, debate, and discuss controversial topics in Development.
Learning Structure: Valley of Values/lines/signs
Time: 15 minutes
Class Size: Appropriate for most class sizes.

Description: Using one of the learning structures for controversies – Corners, Structured Controversy, Valley of Values, Value Signs, or Value Lines, the instructor poses controversial questions to the class. Students share their answers and contribute to further class discussion. Here are some controversies from Development:

- Daycare is harmful for children
- Children are born a blank slate
- Is a parent's divorce harmful to children?
- Preschool children should have academic instruction
- Television violence influences children's behavior more than adults
- Older people are happier than younger people

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77) Piaget's Stages

Purpose: Students discuss Piaget's Stages
Learning Structure: Role Play
Time: 10 minutes or more
Class Size: Appropriate for most class sizes
Description: In this role play exercise, students work in pairs. The instructor assigns students to a Piagetian stage and a scenario.

> Possible Scenarios:
> Santa asks Brad what he would like for Christmas
> A child eats at a restaurant with their parents

Students generate a role play in which a child is interacting with an adult. The student playing the role of the child should speak in a way that is consistent with the Piagetian stage he/she has been assigned. For example, if a child is ordering at a restaurant, they may ask for a scoop of ice cream in a cone because it's bigger than the same scoop in a cup (pre-operational child). Pairs may practice their Role Play a few times, and then perform them for the rest of the class. The audience can try to guess which Piagetian stage is being illustrated by the role play.

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78) Designing a Daycare

Purpose: Students think about the important elements of a good daycare
Learning Structure: Gallery Walk
Time: 45 Minutes
Class Size: Appropriate for small classes

Description: Students work in their teams and create an advertisement for a new daycare center for preschool-aged children. You may want to provide poster board or butcher paper. The flyer should include information on the kinds of programs and activities the daycare will offer. Students should base their program on the information that is presented in their textbook about the developmental needs of this

age group. Using the gallery walk format, students should display their flyers and then walk around the room viewing other students' work. You may want students to vote on which daycare center they find most appealing. You may have the class engage in a larger discussion about the important components of daycare, or the kinds of information that parents use in making daycare choices for their children.

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79) Moral Development

Purpose: Students complete moral dilemmas and categorize responses using Kohlberg's scoring system
Learning Structure: Pairs Check
Time: 15 minutes
Class Size: Appropriate for most class sizes

Description: Students take a few minutes to answer a moral dilemma that you provide. You can use one of Kohlberg's classic moral dilemmas, or you can create your own. Next, give students a copy of Kohlberg's system for scoring moral dilemmas. Students divide into A-B pairs. First the A's try to score their partner's dilemma using Kohlberg's scoring, while the B's coach. Then the B's try to score the A's dilemma, while the A's coach. The class can discuss issues related to how moral dilemmas should be scored. There are many variations to this exercise. You could have students generate their own dilemmas, switch with other teams, etc. The goal, however, is for students to actively engage in the process of answering and scoring moral dilemmas so that they can think critically about the good points, and drawbacks to Kohlberg's theory.

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80) Stereotypes and Aging

Purpose: Students compare stereotypes across the lifespan
Learning Structure: RoundRobin
Time: 15 minutes
Class Size: Appropriate for small classes

Description: Students work in small teams for this brainstorming activity. Students use the RoundRobin or roundtable method to generate stereotypes of older adults. Students can compile their responses into one list and then present them to the class. The instructor may ask students to compare the number of positive and negative stereotypes. If time allows, students can also brainstorm stereotypes of other age groups. This brainstorming activity can be a nice segue into a discussion on negative stereotypes of the elderly.

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81) Erikson's Stages

Purpose: Students discuss Erikson's stages of development
Learning Structure: Line-ups
Time: 15 minutes
Class Size: Most appropriate for small classes

Description: The instructor gives each student a piece of paper with a developmental question. The following questions represent Erikson's eight stages of psychosocial development:

- Can I trust the world?
- Can I control my own behaviors?
- Can I become independent of my parents by exploring my limits?
- Can I master the skills I need to adapt?
- Who am I? What do I believe and feel? What are my attitudes?
- Can I fully give myself to another?
- What can I offer the generations to follow?
- Have I found contentment and satisfaction through my life's work and play?

    Students use the line-ups technique to complete this activity. Once every student is assigned to a question, students try to lineup/order themselves according to Erikson's eight stages. Alternatively, you could place a time-line on the floor with ages of the life span, and students could stand on an age at which they would be most likely to ask their assigned question. This exercise encourages critical thinking because students must discuss and agree on where they should stand relative to others.

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82) Death and Dying

Purpose: Students hear about the psychological stages associated with death and dying
Learning Structure: Surround the Expert
Time: 20 minutes
Class Size: Most appropriate with small classes

Description: The instructor selects several students to serve as the experts. The experts should be students who have been around a terminally ill person, and are willing to share their experiences related to the psychological aspects of death and dying. After a brief introduction to the stages of death and dying, students may choose an expert to surround. Experts share their experiences and students ask questions. If time allows, students may rotate through several experts. The class can come together at the end for a larger discussion. Were their commonalities in the experiences of the experts? Did everyone seem to go through all the stages of death and dying?

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Social Psychology

Activity	Learning Structure
83) Critical Thinking	Ticket-In/One-Minute Papers
84) Controversies in Social Psych.	Valley of Values/Lines/Signs
85) Defining Aggression	Semantic Webbing/Affinity Diagram
86) Bystander Effect	Group Investigation
87) Advertising	Mix-Pair-Freeze
88) Social Identity Theory	RoundRobin
89) Social Norms	Focused Listing
90) Public Service Announcements	Gallery Walk

83) Critical Thinking

Purpose: Students complete a brief one-minute assignment that involves critical thinking, personalizing, or deeper processing of information
Learning Structure: Ticket-In/One-Minute Papers
Time: 1-5 minutes
Class Size: Appropriate for any class size

Description: Students are given a couple minutes to answer a question posed by the instructor. These assignments can be used in a variety of ways – to verify attendance, to start discussion, to assess student knowledge, and to provide opportunities for critical thinking. Here are some examples:

1. Helping Behavior. Have you ever witnessed an emergency situation? Did you intervene or were you a bystander? What factors influenced your decision to either get involved or stand aside?
2. Deindivuation. Given what you know about deindividuation, why do you think individuals engage in illegal behavior on Halloween and Mardi Gras? What other situations promote deinviduation?
3. Social Schemas. Given an example of a social schema. What information is contained in your schema? Can you think of a situation in which you made an inference based on this schema?
4. Attraction. Is there anyone in this class who you didn't know before it started, but is now an acquaintance or friend? If so, what factors contributed to this relationship – seating proximity, similarity, physical appearance?
5. Influence Tactics. Have you ever had a salesperson use the foot-in-the-door, door-in-the-face or the low-ball tactic with you? Describe the situation. Were they successful in getting you to buy the product? Why or why not? Have you ever used influence tactics to get something you wanted from a loved one?

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84) Controversies in Social Psychology

Purpose: Students have a chance to think about, debate, and discuss controversial topics in social psychology.
Learning Structure: Valley of Values/lines/signs
Time: 15 minutes
Class Size: Appropriate for most class sizes.

Description: Using one of the learning structures for controversies – Corners, Structured Controversy, Valley of Values, Value Signs, or Value Lines, the instructor poses controversial questions to the class. Students share their answers and contribute to further class discussion. Here are some controversial questions from the area of social psychology:

- The Internet makes it easier to fall in love
- Children of racist parents will become racist themselves
- Kids who play video games will grow up to be aggressive adults
- Milgram wouldn't get the same results if his experiment was conducted today
- True altruism doesn't exist (acts of helping with no benefit to the helper)
- Do new computer technologies (e.g., e-mail, twitter, Facebook) make it easier to maintain long-term relationships?

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85) Defining Aggression

Purpose: Students discuss how aggression should be defined
Learning Structure: Semantic Webbing/Affinity Diagrams
Time: 5-10 minutes
Class Size: Best for smaller class sizes
Description: Using a PowerPoint, overhead, or handout, the instructor presents a list of actions. You may use the list below:

- A spider eats a bug
- A woman spreads evil gossip about a co-worker
- A man honks at another driver
- A frustrated child punches their bed
- A woman accidentally runs her cat over in the driveway
- A woman tried to run her cat over but misses
- A boxer bloodies the nose of another fighter
- A hungry child steals food from the trashcan
- A man fantasizes about murdering his brother, but does not commit the act
- A prison warden is asked to participate in the execution of an inmate
- A hunter shoots an elk

Students work in small teams of 3-5 students. The recorder of the group writes each item down on a piece of scratch paper or sticky note. The word aggression is written on a paper and placed in the center of the table (or in the center of a poster board/butcher paper, or on a white board). The team then discusses whether or not each item is an example of aggression. Teams can place items that they agree are clearly aggression close to the center word "aggression." Items that are clearly not aggression can be completely left off of the table. Many of these items are unclear and will stimulate a discussion on how aggression should be defined, and how close to the definition it should be placed.

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86) Bystander Effect

Purpose: Students conduct an experiment to illustrate the bystander effect
Learning Structure: Group Investigation
Time: 45-60 Minutes
Class Size: Appropriate for most class sizes

Description: Students work in teams to design and carry out an experiment on helping behavior. The purpose of the experiment is to illustrate that people are more likely to help when they are the only bystander than when there are other people around.

Step One: Each team chooses a behavior in which help might be needed (e.g., dropping a stack of papers in an elevator, or spilling a purse in line at the cafeteria).
Step Two: Out on campus, one member of the group plays the role of the victim, dropping their stack of papers as another person walks by. The students should conduct multiple trials. In half the conditions, the bystander should be the only person near the victim. In the other half of the conditions, fellow team members should act as additional bystanders, but should not intervene.
Step Three: Students return to class and prepare a brief report of their data
Step Four: Teams can share their findings, possibly tallying overall scores for the class.
This activity can serve as a starter for an interesting discussion on the bystander effect. Under what conditions are people more likely to help? Less likely to help?

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87) Advertising

Purpose: Students identify persuasive techniques in everyday advertising
Learning Structure: Mix-Pair-Freeze
Time: 15 minutes
Class Size: Appropriate for smaller class sizes

Description: Students begin by bringing an advertisement to class. The ad can come from a newspaper or magazine of the student's choice. Students should be able to answer the following questions about their ad:

- What route of persuasion (central vs. peripheral) do the advertisers use?
- What persuasive elements are used (e.g., credibility, attractiveness, scarcity, etc.)?
- Who is the target audience for this advertisement?

Using the mix-pair-freeze technique, students move about the room with ad in hand. At the signaling of the instructor (music, dimming the lights, etc.), students stop in front of another student. Pairing for just a moment or two, students share their ad and see if their partner can correctly answer the questions above. The exercise continues with new pairings every few minutes until all students have paired, or for a specified amount of time.

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88) Social Identity Theory

Purpose: Students think about the social categories with which they identify
Learning Structure: RoundRobin
Time: 5 minutes
Class Size: Appropriate for most class sizes

Description: Using the RoundRobin format, students take turns saying aloud the name of a group or social category to which they belong (e.g., Catholic, Native American, male). If a team member can no longer think of a response they may "pass" for one round, and contribute to the next round. Encourage students to think about all the different types of groups and social categories that we use. This exercise can provide a nice introduction to Social Identity Theory.

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89) Social Norms

Purpose: Students generate examples of social norms
Learning Structure: Focused Listing
Time: 5-10 minutes
Class Size: Appropriate for any class size

Description: Focused listing can be used to brainstorm different examples of social norms. Students are asked to generate 5-7 social "rules" for riding an elevator (e.g., face forward, no talking, stare ahead, stand up). Once students have completed their lists, they can pair with other students to combine lists, and/or the lists can be used to facilitate group discussion. With a large class, students can work in pairs. After some time for list generation, instructors may call on a handful of students to share their lists and generate further discussion. This exercise is a good illustration of how many social norms are operating in any given situation. Even something as simple as riding an elevator can have a long list of rules.

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90) Public Service Announcements

Purpose: Students attempt to change attitudes through public service announcements
Learning Structure: Gallery Walk
Time: 40 minutes
Class Size: Appropriate for smaller class sizes

Description: Students work in teams to generate a public service announcement in an effort to change public attitudes toward a negative health behavior. The instructor can assign all teams to the same topic (e.g., smoking), or allow students to choose a health behavior on their own. Students have 20 minutes to think about, and create their public service announcement. The ad can be created on poster board, or butcher paper. During the second 20 minutes, groups present their public service announcements to the rest of the class using the gallery walk technique. One team member should serve as the spokesperson

and should remain with the ad. The other team members should view the other student presentations and ask questions. This exercise is a good opportunity for students to apply the steps toward attitude change.

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Health Psychology

Activity	**Learning Structure**
91) Critical Thinking	Ticket-In/One-Minute Papers
92) Controversies in Health Psych.	Valley of Values/Lines/Signs
93) Leading Causes of Death	Roundtable
94) Defense Mechanisms	Role Play
95) Everyday Hassles	Focused Listing
96) Coping with Final Exam Stress	Write-Pair-Share
97) Personality and Stress	Three-step interview
98) Adapting to a new Culture	Team Consensus

91) Critical Thinking

Purpose: Students complete a brief one-minute assignment that involves critical thinking, personalizing, or deeper processing of information
Learning Structure: Ticket-In/One-Minute Papers
Time: 1-5 minutes
Class Size: Appropriate for any class size

Description: Students are given a couple minutes to answer a question posed by the instructor. These assignments can be used in a variety of ways – to verify attendance, to start discussion, to assess student knowledge, and to provide opportunities for critical thinking. Here are some examples:

1. Coping with Poverty. Many people around the world live in extreme poverty. What do you think would be the best method for coping with poverty? What are some of the ways that poverty might contribute negatively to overall health?
2. Compliance with medical advice. Think of the people in your family. Who is most likely to seek out and comply with medical advice? Who is least likely? Do you notice any gender differences in compliance? What factors play a role in whether or not someone is likely to comply with medical advice?
3. Stress in the workplace. Have you ever had a job that was stressful? What was it about that job that made it stressful? What occupation do you think would be the most stressful and why?
4. Coping with stress. What methods do you use to relax or relieve stress? Are any of these coping strategies potentially dangerous to your health? Explain.
5. Stress and symptoms. Have you ever experienced behaviors or symptoms that you believe were directly related to stress? These could include headaches, teeth grinding, stomach ulcers, nail biting, asthma attacks, etc. Explain.

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92) Controversies in Health Psychology

Purpose: Students have a chance to think about, debate, and discuss controversial topics in Health Psychology.
Learning Structure: Valley of Values/lines/signs
Time: 15 minutes
Class Size: Appropriate for most class sizes

Description: Using one of the learning structures for controversies – Corners, Structured Controversy, Valley of Values, Value Signs, or Value Lines, the instructor poses controversial questions to the class. Students share their answers and contribute to further class discussion. Here are some controversies from Health Psychology:

- Suicide is the inability to cope with stress
- The government should restrict the advertising of unhealthy products (e.g.,. cigarettes and alcohol)
- Daily hassles are worse for your health than major life events
- Females can handle more stress than males
- Used in moderation, alcohol and marijuana can be effective ways of reducing stress

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93) Leading Causes of Death

Purpose: This exercise illustrates the importance of lifestyle choices to our health and well-being
Learning Structure: Roundtable
Time: 10 minutes
Class Size: Appropriate for any class size

Description: Students complete this exercise in small teams. For a large class, you can have students turn to a partner instead. Students use the roundtable format to generate a list of the leading causes of death. The first student gives their answer, writes it down, and then the next student takes a turn. Give students 2-5 minutes to generate their lists. Students can then discuss their lists and come to consensus on the 10 ten leading causes of death. The instructor can present the actual causes of death on the board or a PowerPoint.

1) Heart Disease
2) Cancer
3) Stroke
4) Respiratory Disease
5) Accidents
6) Diabetes
7) Alzheimer's
8) Influenza
9) Kidney Disease
10) Septicemia (blood poisoning)

How did everyone do? Where students surprised by anything on the list? The instructor can talk about how different today's list is from 100 years ago, when Americans were dying primarily from infections. Today, we die from lifestyle choices. We choose to drink, smoke, be sedentary, etc., and these lifestyle choices lead to heart attacks, strokes, cancers, and diabetes.

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94) Defense Mechanisms

Purpose: To learn about defense mechanisms
Learning Structure: Role Play
Time:_ 10 minutes or more
Class Size: Appropriate for most class sizes

Description: In this role play exercise, students work in pairs. The instructor assigns students to a defense mechanism (e.g.,, denial, repression, etc.). Students generate a role play in which a person illustrates the defense mechanism during a conversation with a fictional friend or family member. Pairs may practice their Role Play a few times, and then perform them for the rest of the class. The audience can try to guess which defense mechanism is being illustrated by the role play. In small classes, all pairs may perform their role plays. In large classes, the instructor may randomly call on a few pairs to perform their role play.

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95) Everyday Hassles

Purpose: Students generate examples of everyday hassles
Learning Structure: Focused Listing
Time: 5-10 minutes
Class Size: Appropriate for most class sizes

Description: Using the focused listing technique, students are asked to generate as many everyday hassles they can in 60 seconds. Once students have completed their lists, they can pair with other students to combine lists, and/or the lists can be used to facilitate group discussion. With a large class, instructors may call on a handful of students to share their lists. Students may be asked to select their top three hassles, and compare these with the rest of the class.

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96) Coping with Final Exam Stress

Purpose: Students generate examples of how to cope with stress
Learning Structure: Write-Pair-Share
Time: 5-10 minutes
Class Size: Appropriate for most class sizes

Description: The instructor reads the following scenario to the class:

> *It is three weeks before finals, and Kara is starting to worry. She has two papers, four exams, and on top of that she is graduating and doesn't have a job lined up. What are some strategies Kara could use to cope with her stress?*

Students begin by writing their answer to the question. Next, students share their answer with a partner. They may want to combine their answers, or come up with the best three coping strategies. In the final

step, students can pair with a larger team, or the instructor can call on a few pairs to share their responses with the entire class.

97) Personality and Stress

Purpose: Students discuss personality factors that are related to stress
Learning Structure: Three-Step Interview
Time: 10 minutes
Class Size: Appropriate for most class sizes

Description: Students begin by taking 5 minutes to review their textbook on personality variables that are related to stress. These variables may include Type A or B personality, the hardy personality, or optimistic/pessimistic explanatory style. Students generate some possible questions to use when interviewing their partner. Using the three-step interview technique, four member teams are divided into two A's and two B's. First, A's interview B's, and then B's interview A's, in an attempt to uncover how their partner's personality may influence their reaction to stressors. Finally, the whole team reunites for sharing and discussion.

98) Adapting to a New Culture

Purpose: Students explore and discuss the different patterns for adapting to a new culture
Learning Structure: Team consensus
Time: 15 minutes
Class Size: Appropriate for most class sizes

Description: The instructor begins the assignment by asking students to think about a fictional person who has just moved out of the country to a new culture. The job of the students is to provide advice on how to make this transition as least stressful as possible. Students should have a few minutes to look over the different patterns of adapting to a new culture – integration, assimilation, separation, and marginalization. Students then share answers with their team. The team members try to reach consensus on what advice is best, and than teams share their answers with the class.

Sex and Gender

Activity	Learning Structure
99) Critical Thinking	Ticket-In/One-Minute Papers
100) Controversies in Sex/Gender	Valley of Values/Lines/Signs
101) What's My STD?	What's on my back?
102) Gender Roles	Roundtable
103) Analysis of Children's Toys	Think-Pair-Share
104) Male and Female Anatomy	Pairs Check
105) Contraception	Expert Jigsaw
106) Puberty	Role Playing

99) Critical Thinking

Purpose: Students complete a brief one-minute assignment that involves critical thinking, personalizing, or deeper processing of information
Learning Structure: Ticket-In/One-Minute Papers
Time: 1-5 minutes
Class Size: Appropriate for any class size

Description: Students are given a couple minutes to answer a question posed by the instructor. These assignments can be used in a variety of ways – to verify attendance, to start discussion, to assess student knowledge, and to provide opportunities for critical thinking. Here are some examples:

1. Artificial Reproductive Technologies. If you and a partner were unable to have children, would you seek medical treatment? Would you be willing to use artificial insemination? In-Vitro Fertilization? If you did choose in-vitro, how many embryos would you be willing to implant?
2. Transsexualism. If a close family member came to you and told you they felt they were born in the wrong body and were now going to live their life as the other gender, how would you respond? How supportive would your family be?
3. Communication. Did your parents have open discussions with you about sex in childhood, or was it a taboo subject? Will you be comfortable talking to your own child about sexual issues? Why or why not?
4. Sex Selection. Do you think couples should be allowed to choose the sex of their child? For medical reasons? To even out a family? What are the ethical issues involved in sex selection?
5. Androgen Insensitivity. People who have androgen insensitivity have the chromosome pattern of a male, but the external genitalia of a female. Some of these individuals have been barred from competing in the Olympics as females because of their male chromosomes. What makes us male or female? Is it our chromosomes? Our gender identity? Our external genitalia?

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100) Controversies in Sex and Gender

Purpose: Students have a chance to think about, debate, and discuss controversial topics in sex and gender.
Learning Structure: Valley of Values/lines/signs
Time: 15 minutes

Class Size: Appropriate for most class sizes

Description: Using one of the learning structures for controversies – Corners, Structured Controversy, Valley of Values, Value Signs, or Value Lines, the instructor poses controversial questions to the class. Students share their answers and contribute to further class discussion. Here are some controversial questions from the area of Sex and Gender:

- Excess frozen embryos (leftover from fertility treatments) should be used for research
- Transsexualism is caused by biological factors
- If men and women were treated the same, gender differences would disappear
- Abortion should be legal
- Condoms should be available on school campuses

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101) What's My STD?

Purpose: To review sexually transmitted diseases
Learning Structure: What's on my back?
Time: 10 minutes
Class Size: Small classes are best, but can this activity can be modified for a large class

Description: Using the *What's on my back*? learning structure, the instructor begins by discreetly taping the name of an STD on each students back. Students then try to guess the STD on their back by asking other students questions that can be answered with yes or no. They might ask "Can my problem be cured?" or "Can I pass my disease to others through kissing?" Once they've guessed their STD, they can remove it from their back, and continue to help other students around them. Several different formats can be used depending on class size, and classroom configuration. You can have students wander around the room, like they're at a party, and have them ask a student one question, and then move on to another student. Or, you could have students stay seated and work in teams.

In large classes, there isn't time for the instructor to walk around and tape a paper to each student's back, so modifications need to be made. Students can be assigned to work in pairs. Start by having each student think of a disorder for their partner (they may want to write it down on a piece of paper and than turn it face down). Students then ask each other questions, trying to guess what's on the paper.

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102) Gender Roles

Purpose: Students generate examples of societal expectations for men and women
Learning Structure: Roundtable
Time: 10 minutes
Class Size: Appropriate for small class sizes

Description: Using the roundtable technique, students generate examples of societal expectations for males and females. For example, the first student might say "boys don't cry." Students continue to contribute responses for a fixed amount of time or until team members can no longer generate any more responses. For accountability, groups may be asked to record their responses. Lists can then be shared with the larger class for comparison and discussion.

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103) Analysis of Children's Toys

Purpose: Students examine how male and female toys promote and encourage gender differences
Learning Structure: Think-Pair-Share
Time: 15 minutes
Class Size: Appropriate for most class sizes

Description: Students are given five minutes to write down 3-5 of their favorite toys from childhood. They should describe each toy and whether or not it was a stereotypical male or female toy, or whether it was gender neutral. They should also think about the kinds of skills and abilities that are encouraged by playing with that toy. For example, does the toy encourage spatial skills (e.g., erector set) or does it encourage the development of interpersonal skills (e.g., dolls)? Students then partner with another student (or team of students) to share and discuss. Students may also be asked to discuss popular gender typed toys and the type of skills developed and encouraged by each toy. This activity can be used to introduce a discussion of the nature/nurture debate in child development. Could encouraging boys and girls to play with different toys lead to gender differences in skills and abilities?

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104) Male and Female Anatomy

Purpose: Students check their knowledge of the male and female reproductive system.
Learning Structure: Pairs Check
Time: 15 minutes
Class Size: Appropriate for most class sizes

Description: The instructor provides students with a diagram/drawing of the male and female reproductive structures. Using the pairs check technique, students are divided into A-B pairs. The A's begin by labeling the diagram of female anatomy from memory, while the B's coach. Then the B's label the male anatomy while the A's coach. For a small class, you may have the pairs return to their teams where they can check answers with another pair.

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105) Contraception

Purpose: Students evaluate methods of contraception
Learning Structure: Expert Jigsaw
Time: 15 minutes
Class Size: Appropriate for small classes

Description: Each team member is assigned to a different method of contraception. Students should come to class ready to present the following information to team members:

- How does this method work?
- How much does this method cost?
- Is this method available without a prescription?
- What are the advantages of this method?
- What are the disadvantages of this method?
- How effective is this method?

Using the expert jigsaw method, students begin by meeting in expert groups with other students who researched the same contraceptive. Then, experts return to their group and present their contraceptives to the each other. For accountability, students can be randomly called on to present their contraceptive to the larger class and/or the written answers to the questions can be turned in.

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106) Puberty

Purpose: Students review the physiological changes associated with puberty.
Learning Structure: Role Playing
Time: 20 minutes
Class Size: Most appropriate for small class sizes

Description: The instructor assigns pairs or teams of students to an adolescent of a particular age and gender (boy/girl, 8-10-12 years old). Students imagine that they are the parent of this child and construct a role play in which the parent discusses the physiological and psychological changes that happen during puberty. Instructors can call on pairs/teams to perform their role plays for the class. The role plays can lead to a discussion about when and how these changes can be discussed with children.

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Personality

Activity	Learning Structure
107) Critical Thinking	Ticket-In/One-Minute Papers
108) Controversies in Personality	Valley of Values/Lines/Signs
109) Theories of Personality	Jigsaw
110) Who am I?	Think-Pair-Share
111) Celebrity Analysis	Send/Pass a Problem
112) Fixations and Personality Type	Think-Pair-Share
113) Projective Tests	Write-Pair-Share
114) Measuring Personality	Jigsaw

107) Critical Thinking

Purpose: Students complete a brief one-minute assignment that involves critical thinking, personalizing, or deeper processing of information
Learning Structure: Ticket-In/One-Minute Papers
Time: 1-5 minutes
Class Size: Appropriate for any class size

Description: Students are given a couple minutes to answer a question posed by the instructor. These assignments can be used in a variety of ways – to verify attendance, to start discussion, to assess student knowledge, and to provide opportunities for critical thinking. Here are some examples:

1. Who am I? Complete the sentence "I am _____." Complete the sentence as many times as you can in 5 minutes. This ticket-in can be used as an introduction to trait theories of personality.
2. Personality Testing. Have you ever taken a personality test? What was the test like? What was the purpose of the test? Did you feel that the test was accurate? Why or why not?
3. Id, Ego, and Superego. Think of a personal dilemma you have faced (e.g., you wanted to go to a concert on a night you were supposed to work). Think of appropriate id and superego responses to your dilemma. Now think about the task of the ego. What did you do to resolve your dilemma? Were you able to satisfy both the id and the superego?
4. Personality Theories. Which perspective on personality do you most agree with and why? Give examples from your own life experiences that support your view.
5. The Big 5. How would you evaluate yourself on the five-factor model of personality? Would you consider yourself to be at an extreme end of any of the five dimensions?

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108) Controversies in Personality

Purpose: Students have a chance to think about, debate, and discuss controversial topics in Personality.
Learning Structure: Valley of Values/lines/signs
Time: 15 minutes
Class Size: Appropriate for most class sizes.

Description: Using one of the learning structures for controversies – Corners, Structured Controversy, Valley of Values, Value Signs, or Value Lines, the instructor poses controversial questions to the class. Students share their answers and contribute to further class discussion. Here are some controversies in Personality:

- You can change your personality
- Personality tests are accurate
- Babies are born with a personality
- Personality tests should be used by employers in hiring decisions
- Projective tests tell you more about the personality of the psychologist than the person taking the test

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109) Theories of Personality

Purpose: Students learn about the major theories on personality
Learning Structure: Jigsaw
Time: 15 – 20 minutes
Class Size: Appropriate for most class sizes

Description: Students complete this exercise in teams of 3-5. Assign each member of the group to a different theory of personality (e.g., Freud's Theory, Trait Theories, Behavioral Theories, Cognitive Theories, Humanistic Theories). Give group members time to research and gather information on their perspective. This can be done in several ways. You may either ask students to come to class with a prepared description/explanation of their assigned theory, or you may give students a chance to look over the information in their textbooks during class. Students then meet back with their team and teach the other students about their assigned theory. Accountability and assessment can be ensured by having the instructor randomly call on students to provide a description of a specified theory. A similar activity can be done by using expert jigsaw and/or partner jigsaw.

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110) Who am I?

Purpose: Students explore and discuss the trait approach to personality
Learning Structure: Think-Pair-Share
Time: 10 minutes
Class Size: Appropriate for any class size

Description: Students begin by making a list of 20 traits that best describe them. In the second step, students share their list with a partner. The partners then work together to identify which traits are surface traits, and which are source traits. The instructor may call randomly on students to share examples of surface traits and source traits. For accountability, students can be asked to turn in their papers.

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111) Celebrity Analysis

Purpose: Students review and apply the major theoretical perspectives on personality
Learning Structure: Send/Pass a problem
Time: 20 minutes
Class Size: Appropriate for small classes

Description: Each team begins by coming up with the name of a celebrity. Alternatively, the instructor may select the celebrities. Teams begin by writing the name of the celebrity at the top of a sheet of paper.

> Rotation #1) Trait Theories: Students are asked to list the traits that the celebrity has.
> (Student then pass their sheet in a clockwise direction to a new team)

> Rotation #2) Freud's Theory: Students write down any unconscious conflicts the celebrity might be experiencing, and whether they are fixated at any of the psychosexual stages.
> (again, students rotate their sheet to a new team)

> Rotation #3) Cognitive-Behavioral: What thought patterns might the celebrity have learned? How do their thoughts, behaviors, and environment influence each other?
> (students rotate their sheet to a new team)

> Rotation #4) Humanistic Theories: What sort of self-image does this celebrity have? Is their ideal self similar to their actual self?

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112) Fixations and Personality Type

Purpose: Students discuss Freud's psychosexual stages and how fixations influence adult personality.
Learning Structure: Think-Pair-Share
Time: 10 minutes
Class Size: Appropriate for any class size

Description: Students prepare a description of a fictional person. They should describe a person that is fixated at one of Freud's psychosexual stages. For example, they could describe themselves as stubborn, uptight, and excessively neat. They should not say the name of the stage, however, because their partner will try to guess the stage that they fixated in.

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113) Projective Tests

Purpose: Students think critically about the scoring of projective tests
Learning Structure: Write-Pair-Share
Time: 15 minutes
Class Size: Works with most class sizes

Description: Students are given 5 minutes to draw anything they want on a blank sheet of paper. They should not put their names or any other identifying information on their drawing. If you have a small class, you can collect the papers and randomly pass them back so that each student ends up with a new paper. In a large class, students may switch papers with a partner. Allow students five minutes to come up with an analysis of the author's personality that is based on the principle of projective testing. Students can share their analyses with their partner, and then with the larger class. This exercise can be used to demonstrate the difficulty of developing a scoring system for projective tests. What criteria did students use? Did they focus on the amount of space used, the colors, the subject matter? This exercise can also be used as a general introduction to projective tests. What are the advantages and disadvantages to this method of measuring personality?

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114) Measuring Personality

Purpose: Students collect and examine personality tests from the Internet
Learning Structure: Jigsaw
Time: 15 minutes
Class Size: Most appropriate for small classes

Description: Using the jigsaw technique, students work in teams of 3-5. Students come to class with a personality test they've found on the Internet. The instructor may want to place limitations on what students should bring in. For example, students could be instructed to find the most ridiculous personality test they can find, or the most scientific, or the shortest, etc. Students bring their printed tests (and the answers) to their groups. During class time, team members present their tests, giving teammates a chance to take and score the tests. Students can be given specific questions to discuss such as: How can you tell if a personality test is valid, or whether it's "pop-psychology"? What elements are important in a good personality test? Why do you think personality tests are so popular with the general public? Have you ever taken a personality test from a magazine or the Internet? Did you believe the findings to be accurate? This exercise can be the start of a class discussion on the uses and validity of personality tests.

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Psychopathology

Activity	**Learning Structure**
115) Critical Thinking	Ticket-In/One-Minute Papers
116) Controversies in Psychopath.	Valley of Values/Lines/Signs
117) What's My Disorder?	What's on my back?
118) Speed Dating	Inside/Outside Circles
119) Gallery Walk on Disorders	Gallery Walk
120) Personal Accounts	Surround the Expert
121) Explaining Psychopathology	Corners
122) Phobias	Semantic Webbing

115) Critical Thinking

Purpose: Students complete a brief one-minute assignment that involves critical thinking, personalizing, or deeper processing of information
Learning Structure: Ticket-In/One-Minute Papers
Time: 1-5 minutes
Class Size: Appropriate for any class size
Description: Students are given a couple minutes to answer a question posed by the instructor. These assignments can be used in a variety of ways – to verify attendance, to start discussion, to assess student knowledge, and to provide opportunities for critical thinking. Here are some examples:

1. Mental Illness. Are there any members of your family that have been diagnosed with a mental illness? Are there any illnesses that run in the family? Explain.
2. Phobias. Do you have any irrational fears or phobias? If so, how did your fear develop? Does this irrational fear interfere with your life?
3. Depression. Most of us have experienced the feeling of depression at some point in our lives. Think back to a time when you were feeling depressed. What was the cause of the depression? Which of the symptoms on page 476 in your text did you experience?
4. Stereotypes of the Mentally Ill. The mentally ill are often portrayed in television and movies as dangerous psychopaths even though they are no more violent than the general population. Can you think of any specific examples of mentally ill characters in TV and movies? Were these characters portrayed positively or negatively?

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116) Controversies in Psychopathology

Purpose: Students have a chance to think about, debate, and discuss controversial topics in Psychopathology.
Learning Structure: Valley of Values/lines/signs
Time: 15 minutes
Class Size: Appropriate for most class sizes

Description: Using one of the learning structures for controversies – Corners, Structured Controversy, Valley of Values, Value Signs, or Value Lines, the instructor poses controversial questions to the class.

Students share their answers and contribute to further class discussion. Here are some controversies in psychopathology:

- Children are over diagnosed with attention-deficit-hyperactivity disorder
- Everyone is a little bit crazy
- Workers should have to disclose their mental illness to employers
- Alcoholism is a disease, not a mental illness
- Scientists shouldn't decide what's sexually normal, people should decide for themselves

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117) What's My Disorder?

Purpose: Students review psychological disorders
Learning Structure: What's on my back?
Time: 10 Minutes
Class Size: Small classes are best, but can be modified for large class
Description: Using the *What's on my back*? learning structure, the instructor begins by discreetly taping the name of a psychological disorder on each students back. Students then try to guess the disorder on their back by asking other students questions that can be answered with yes or no. They might ask "Do I have repetitive thoughts?" or "Do I share my body with more than one person?" Once they've guessed their disorder, they can remove it from their back, and continue to help other students around them. Several different formats can be used depending on class size, and classroom configuration. You can have students wander around the room, like they're at a party, and have them ask a student one question, and then move on to another student. Or, you could have students stay seated and work in teams.

　　　In large classes, there isn't time for the instructor to walk around and tape a paper to each student's back, so modifications need to be made. Students can be assigned to work in pairs. Start by having each student think of a disorder for their partner (they may want to write it down on a piece of paper and than flip it over. Students then ask each other questions, trying to guess what's on the paper.

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118) Speed Dating

Purpose: Students discuss the various psychological disorders
Learning Structure: Inside/Outside Circles
Time: 15 minutes
Class Size: Appropriate for smaller class sizes

Description: Students enjoy this fictional variation of speed dating (or roommate finder). Students begin by choosing a psychological disorder (or instructors may assign students to disorders). They take a few minutes to familiarize themselves or review the basic elements of the disorder. Next, using the inside/outside circles structure, students converse with other students for about 60 seconds, and ask questions as if they were getting to know them better for a future date. Or, alternatively students can interview each other for potential roommate opportunity. Students should stay "in character" and answer

the questions as if they really had their assigned disorder. Every 60 seconds, students rotate to a new "interview" and begin again.

119) Gallery Walk on Psychological Disorders

Purpose: Students research a psychological disorder and present to the class
Learning Structure: Gallery Walk
Time: 15-30 minutes for the presentation
Class Size: Most appropriate for smaller classes

Description: Students begin by preparing a poster on a psychological disorder outside of class time. Using the Gallery Walk technique, ½ of the class hangs their poster and stands by it, while the other half the class walks around viewing the posters and asking the author questions. In a second round, the students switch roles.

120) Personal Accounts

Purpose: Students learn about what it's like to have a psychological disorder
Learning Structure: Surround the Expert
Time: 15 minutes
Class Size: Works better in smaller classes

Description: The instructor begins by asking for volunteers to be the "expert." In this case, students who have a friend or family member that suffers from a psychological disorder, and is willing to share this information with the class, may volunteer. Experts spread around the room. Other students surround an expert that will be discussing a disorder they are interested in learning more about. Experts can share their experiences, and the students can ask questions. If you have more time, students can even rotate from expert to expert.

121) Explaining Psychopathology

Purpose: Students think about and discuss the theoretical models used to explain abnormal behavior.
Learning Structure: Corners
Time: 15 minutes
Class Size: Appropriate for smaller class sizes

Description: After an introduction to the different theoretical approaches to understanding mental illness, instructors pose the following question to the class: "What causes abnormal/mentally disordered

behavior? Each corner of the room can represent a different theoretical perspective – biological model, psychoanalytic model, behaviorism, and the cognitive perspective. Students meet with others who share their view by meeting in different "corners" of the room. After some discussion, groups can defend their position to the rest of the class.

122) Phobias

Purpose: Students generate examples of phobias and classify them according to the four major categories of phobias
Learning Structure: Semantic Webbing
Time: 15 minutes
Class Size: Appropriate for smaller classes

Description: Students begin by brainstorming individually for 3-4 minutes. They should come up with as many phobias as possible, recording their responses on sticky-notes or scraps of paper. Next, students read their answer aloud and see if they can place it into one of the four main headings below:

1) Fear of Animals and Insects
2) Fear of the Natural Environment
3) Fear of Particular situations
4) Fear of injury or blood

Students may discuss the placement of the phobias until all the phobias have been categorized. Which category had the most responses? Were there any phobias that didn't fall into these categories? Teams can share their brainstorming with the rest of the class.

Treatment for Psychopathology

Activity	Learning Structure
123) Critical Thinking	Ticket-In/One-Minute Papers
124) Controversies in Therapy	Valley of Values/Lines/Signs
125) You be the Psychologist	Send/Pass a problem
126) How to find help	Jigsaw
127) Rational-Emotive Therapy	Discussion with Talking Chips
128) Anxiety Hierarchies	Line-Ups
129) Cyber therapy	Write-Pair-Share
130) Group Therapy	Think-Pair-Square

123) Critical Thinking

Purpose: Students complete a brief one-minute assignment that involves critical thinking, personalizing, or deeper processing of information
Learning Structure: Ticket-In/One-Minute Papers
Time: 1-5 minutes
Class Size: Appropriate for any class size

Description: Students are given a couple minutes to answer a question posed by the instructor. These assignments can be used in a variety of ways – to verify attendance, to start discussion, to assess student knowledge, and to provide opportunities for critical thinking. Here are some examples:

    1. Childhood Disorders. Do you know any children who have been diagnosed with mental illnesses? Are they on any medication? How do you feel about the use of psychiatric drugs in treating children?
    2. Therapy Advice. Imagine that you are giving advice to a friend who is about to enter psychotherapy. Tell them what they can expect from the experience. What things might you warn them about, such as sexual intimacy in the client-therapist relationship.
    3. Seeking Therapy. If you were seeking out a therapist for talk therapy, what theoretical perspective would you look for? Cognitive therapy? Behavioral therapies? Humanistic therapies? Why?
    4. Rational-Emotive Therapy. Think of an example from your own life where you experienced a negative emotion because of the beliefs you had about the situation. Were you eventually able to change your thinking so that you could feel more positive about the event?
    5. Self-Help Groups. Do you know anyone who is a member of a self-help group such as AA? In what way has the self-help group aided them? How often do they meet? If you had a problem, would you consider joining a self-help group? Why or why not?

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124) Controversies in Treatment

Purpose: Students have a chance to think about, debate, and discuss controversial topics in treating mental illness.
Learning Structure: Valley of Values/lines/signs

Time: 15 minutes
Class Size: Appropriate for most class sizes.

Description: Using one of the learning structures for controversies – Corners, Structured Controversy, Valley of Values, Value Signs, or Value Lines, the instructor poses controversial questions to the class. Students share their answers and contribute to further class discussion. Here are some controversies from the area of Treatment:

- Psychosurgery is justified
- Psychotherapy is effective
- Labeling a person with a disorder can hinder effective treatment
- With a loving family, people can get better without seeking treatment
- Therapists and their clients can develop a friendship outside the therapy
- Therapists and their past clients should be allowed to date

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125) You be the Psychologist

Purpose: Students use critical thinking to diagnose and treat a fictional client
Learning Structure: Send/Pass a problem
Time: 15-30 minutes
Class Size: Appropriate for most class sizes

Description: This exercise begins with students generating a short description of a fictional client with a psychological disorder. They should not list the name of the disorder in their description, however, because another team will be attempting a diagnosis. They should give a variety of information including age, gender, symptoms, etc. The fictional scenario can be created by pairs or teams of students. The next step is to pass their description to a neighboring team. Based on the description, the new team should decide what psychological disorder the person is suffering from. The paper can be passed again to another team, who will decide the best therapy for the client. For the final rotation, the paper can return to the original team where they can discuss and comment on whether the appropriate diagnose and treatment were selected.

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126) How to Find Help

Purpose: Students research how to find help for common problems
Learning Structure: Jigsaw
Time: 10 minutes
Class Size: Works best in small classes

Description: Using the jigsaw, the instructor assigns each student in the group to a different disorder. In order to be most useful for students, try to select problems that would be more common in college populations such as:

> Eating Disorders
> Substance Abuse
> Domestic Violence
> Test Anxiety

Outside of class time, students research how they could find help if they were suffering from this problem. They should try to find campus resources, as well as medical and community options. Once in class, students can meet in expert groups (made up of all the students assigned to the same topic). Then, students can return to their regular teams and can teach/share their information. Finally, the instructor may randomly call on students to share what they've learned.

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127) Rational Emotive Therapy

Purpose: Students generate examples of irrational beliefs and reword them with j more rational, helpful statements.
Learning Structure: Discussion with Talking Chips
Time: 5-10 minutes
Class Size: Appropriate for most class sizes
Description: Students work in teams of 3-5. Each student chooses an object to use as a "talking chip" (e.g.,, pen, coin, keys). One student begins by generating an irrational belief. They might say, "Nobody loves me." Once they've spoken, they put their talking chip into the center of the table. Other students may respond by trying to replace that irrational statement with a more rational, helpful one. For example, a student might answer with "Is that really true? Let's make a list of all the people who love you." It's now another student's turn to come up with an irrational statement and put their chip on the table. Students may not share an irrational statement again until all team members have taken a turn and placed their chips on the table. When everyone has shared, the members retrieve their chips and begin again.

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128) Anxiety Hierarchies

Purpose: Students learn about anxiety hierarchies
Learning Structure: Line-ups
Time: 10 minutes
Class Size: Appropriate for most class sizes

Description: Instructor asks for a volunteer who has a phobia (or the volunteer could pretend to have a phobia). For example, the volunteer may have a fear of heights. Everyone in the class writes down one situation that would provide anxiety for a person with a fear of heights. They might write "riding in an elevator to the 10th floor," or "looking down from a 20-foot bridge." The volunteer randomly calls on

students to come to the front of the room and read their item. As students come up, the volunteer physically orders them according to the level of anxiety. This exercise is a good visual representation of an anxiety hierarchy. Also, a second volunteer with the same phobia may be asked to come up and "reorder" the people according to their personal fears.

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129) Cyber Therapy

Purpose: Students investigate Cyber therapy
Learning Structure: Write-Pair-Share, Internet
Time: 15 minutes
Class Size: Think-Pair-Square

Description: Before class, students spend time researching an online cyber therapist. Students should answer the following questions:

- How much will the cyber therapy cost?
- Does the cyber therapist have any credentials?
- What theoretical approach to therapy is used?

In class, students meet in teams and share their information with their teammates. Groups may also want to discuss the overall advantages and disadvantages to cyber therapy, and whether or not they would consider using this mode of delivery.

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130) Group Therapy

Purpose: Students discuss the advantages and disadvantages of group therapy
Learning Structure: Think-Pair-Square
Time: 10 minutes
Class Size: Appropriate for most class sizes

Description: Students begin by thinking about their answers to the following questions:
- What are the advantages to group therapy?
- What are the disadvantages to group therapy?
- How many examples of group therapy can you think of?

Next, students pair and discuss their answers. Finally, students square with other team members and compile their list of advantages and disadvantages. The lists can be handed in and/or used for a larger class discussion.

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