

| | | |
|---|--|---|
| <h2>HOW DO I LEARN BEST?</h2> | | Student/Class Goal Students don't want to struggle through the learning process. Finding out about their individual learning styles will give them tools to make learning easier. |
| Outcome <i>(lesson objective)</i> Students read about and determine their individual learning styles in order to develop learning strategies. | | Time Frame 45-90 minutes |
| Standard <i>Read with Understanding</i> | | NRS EFL 3-5 |
| COPs Determine the reading purpose. | Activity Addresses Components of Performance Students read to find out about their individual learning style. | |
| Select reading strategies appropriate to the purpose. | Students are sharing the information they read so they will need to read carefully and take notes. They will need to read and follow directions to complete the inventory. | |
| Monitor comprehension and adjust reading strategies. | Students may choose to re-read sections that are unclear to them. | |
| Analyze the information and reflect on its underlying meaning. | Students will synthesize the information in order to present it to others. | |
| Integrate it (i.e. new information) with prior knowledge to address the reading purpose. | Students use the information to choose strategies that will help them learn. | |
| Materials Learning Styles Inventory <i>Learning Styles and Inventories</i> Teacher Resource Learning Styles Information Packet How Do I Learn Best Learning Objects | | |
| Learner Prior Knowledge Write the words "aural", "kinesthetic", and "visual" on the board or chart paper and ask students if they are familiar with those terms or with the term "learning styles". As part of the discussion, introduce the idea that everyone learns differently and they are going to find out how they learn best. | | |
| Instructional Activities Step 1 - Give students the learning styles inventory, either a paper copy or on the web at http://www.vark-learn.com/english/page.asp?p=questionnaire . Read each item out loud as the students mark their answers. When they are finished, guide them through the scoring process. Have students share what their learning styles are. TEACHER NOTE Although the VARK is used in this lesson, the <i>Learning Styles and Inventories</i> Teacher Resource will provide you with a list of currently available learning style inventories that you and your students might be interested in learning more about. Step 2 - Give each student an information packet about his/her particular learning style or have them explore the information at the web sites listed below. This information will include a description of the learning style and learning strategies that take advantage of that style. Make sure students understand that most people have characteristics of more than one learning style. Step 3 - Set up a Jigsaw Strategy . When students are finished reading the information, have them form groups with other students who have the same learning style. In the groups, students can discuss what they learned and what strategies they think will be helpful for them to use. Students form new groups with at least one person from each learning style category in each group. Students will teach the others in the group about their learning style. Step 4 - Students will write down the strategies they have chosen to try in a particular subject area, for example in reading or in math. The strategies they choose may also depend on the teaching style of the instructor. After each strategy they will leave room to write notes about how the strategy worked for them when they used it or if it didn't work. Based on the types of learning styles in the class, the teacher can choose or develop some teaching strategies that will provide support for the students. | | |
| Assessment/Evidence <i>(based on outcome)</i> Completed Learning Styles Inventory Learning plan with strategies | | |

Teacher Reflection/Lesson Evaluation

Not yet completed.

Next Steps

Look at students learning preferences using one of the other inventories found in the *Learning Styles and Inventories* Teacher Resource. How Do I Learn Best Learning Objects will give students additional practice with identifying their learning style.

Technology Integration

Jigsaw Strategy <http://www.jigsaw.org>

The Effective Teaching and Learning Network <http://www.etin.org.uk/page33.html>

Learning Styles and Multiple Intelligence http://www.ldpride.net/learning_style_work.html

VARC: A Guide to Learning Styles <http://www.vark-learn.com/english/index.asp>

Learning Styles Pyramid Model http://www.creativelearningcnetre.com/LSA_roll.asp

Purposeful/Transparent

Students learn that knowing their learning styles can help them find ways to make learning easier and more efficient.

Contextual

Students use the information from reading to find out about their learning styles and to help them choose helpful learning strategies. Students use their plan to help them during class.

Building Expertise

Students use the strategies they choose to help them learn.

Learning Styles and Inventories Teacher Resource

A learning style is a student's consistent way of responding to and using stimuli in the context of learning. Keefe (1979) defines learning styles as the "composite of characteristic cognitive, affective, and physiological factors that serve as relatively stable indicators of how a learner perceives, interacts with, and responds to the learning environment." Stewart and Felicetti (1992) define learning styles as those "educational conditions under which a student is most likely to learn." Thus, learning styles are not really concerned with "what" learners learn, but rather "how" they prefer to learn.

Three Schools of Learning Styles

Learning styles come from three schools of thought: Perceptual Modality, Information Processing, and Personality Patterns (Conner, Marcia & Hodgins, Wayne, 2000).

1. Perceptual Modality examines the primary way our bodies take in information through our senses, such as auditory, visual, smell, kinesthetic, and tactile. Those perceptions deeply affect our ability to learn. Whether you tend to rely more or less on one sense than another has a tremendous influence on how you interpret new experiences and succeed in whatever you work with each day. VAK is one of these styles and does not really worry about the why of learning styles.
2. Information Processing distinguishes between the way we think, solve problems, and remember. This may be thought of as the way our brain processes information. The first part of Kolb's Learning Style Inventory in which he describes the process of learning is perhaps the best example.
3. Personality Models are the way we interact with our surroundings. Each of us has a preferred, consistent, distinct way of perceiving, organizing, and retaining information. This is due to the way we were brought up (environment or nurture) and the genes (DNA or nature) within us. This may be thought of as the ego within us, or what makes us what we are. The Four Temperaments, Myers Briggs MBTI, Keirsey, DISC, and Howard Gardner's multiple intelligences are examples.

1. Perceptual Modality Descriptions

Your Learning Style <http://www.neable.org/resources/instructional-material/overview/>

ESOL or beginning literacy inventory that uses "see, hear, feel" words and pictures. A quick instrument which takes approximately 10-15 minutes to complete. Three learning styles will be tested - visual, auditory, and kinesthetic.

Barsch Inventory Online http://ww2.nsc.edu/gerth_d/AAA0000000/barsch_inventory.htm

Paper Copy http://medicine.utah.edu/learningresources/tools/styles/barsch_inventor.pdf

This popular inventory is an informal, self-reporting instrument that provides students with an indication of the relative strengths and weaknesses in learning through different sensory modalities: auditory, visual, tactile.

VARK <http://www.vark-learn.com/english/index.asp>

Stands for visual, auditory, read/write, and kinesthetic; also known as the VAK (visual, auditory, kinesthetic) or the VAKT (visual auditory, kinesthetic, tactile). This site contains a learning style inventory as well as a good deal of explanatory information and help sheets that provide study strategies to complement the style. One of the most popular models nowadays due to its simplicity, however, its main weakness is that the research does not support it - probably because it is more of a *preference* than a *style*.

Learning Style Inventory <http://ttc.coe.uga.edu/surveys/LearningStyleInv.html>

Tactile, visual, auditory results with learning strengths, teaching strategies and technology. Can also be found online through Ohio's New Staff Orientation.

2. Information Processing

Index of Learning Styles Questionnaire (ILS) <http://www.engr.ncsu.edu/learningstyles/ilsweb.html>

Richard E. Felder and Linda Silverman formulated a learning styles model that presents a hybrid of personality and information processing models. Their model asks learners to identify preferences on four dimensions (active/reflective, sensing/intuitive, visual/verbal, and sequential/global). The Solomon and Felder instrument contains 44 questions and can be found at North Carolina State University.

Kolb Learning Style Inventory (LSI) can be purchased at <http://www.learningfromexperience.com>, download for a fee.

A simple self-description test based on experiential learning theory, that is designed to measure an individual's preferences and needs regarding the learning process. David Kolb's Learning Style Model classifies learners as having a preference for 1) *concrete experience* or *abstract conceptualization* (how they take information in), and 2) *active experimentation* or *reflective observation* (how they internalize information). The resulting learning styles are combinations of the individual's preferred approaches. These learning styles are as follows: Converger, Diverger, Assimilator, and Accommodator.

Honey & Mumford Learning Styles Questionnaire (LSQ) can be purchased at <http://www.peterhoney.com> for a fee.

There are two versions of the LSQ, an 80-item and 40-item assessment that finds the learners preferred ways of learning

The Learning Style Survey http://www.skagitwatershed.org/~donclark/hrd/styles/learn_style_survey.html

While basically the same as Kolb's model, there are a couple of differences. First, they substitute the terms "reflector" for divergers (reflective observation), "theorist" for assimilators (abstract conceptualization), "pragmatist" for convergers (concrete experience), and "activist" for accommodators (active experimentation). In addition, the new labels have slightly different meanings. They also postulate that people prefer different methods of learning, depending upon the situation and their experience level.

3. Personality Models Descriptions

Paragon Learning Style Inventory (PLSI) <http://www.oswego.edu/plsi/>

A self-administered survey for ages 9-adult that provides a very reliable indication of learning style and cognitive preference. It uses the four Jungian dimensions (i. e, introversion/extroversion, intuition/sensation, thinking/feeling, and judging/perceiving) that are also used by the Myers-Briggs Type Indicator, Murphy Meisgeir Type Indicator, and the Keirsey-Bates Temperament Sorter. This site provides the 48-item general version. To obtain both the 52-item revised student or 52-item adult versions, please select the order link <http://www.alstatela.edu/faculty/jshindl/plsi/order.htm> and follow the directions.

Jung Typology Test <http://www.humanmetrics.com/cgi-win/JTypes2.asp>

A Meyers Briggs type inventory. After completing the inventory, you will receive your type formula according to Carl Jung and Isabel Myers-Briggs typology along with the strengths of the preferences and identifies 16 personality styles based on introvert/extrovert, sensors/intuitors, thinkers/feelers, and judgers/perceivers.

Birmingham Grid for Learning (BGfl) Multiple Intelligences Test

http://www.bgfl.org/bgfl/custom/resources_ftp/client_ftp/ks3/ict/multiple_int/questions/choose_lang.cfm

An explanation of the eight multiple intelligences are provided along with the online test that is offered in multiple languages. Students can print the intelligences wheel and the unique number printed on the sheet will allow students to re-visit their wheel at any time. Individual and class results are also available.

Multiple Intelligences for Adult Literacy and Education <http://literacyworks.org/mi/intro/index.html>

An introduction to Multiple Intelligences (MI) and an online assessment are provided. Especially helpful is a Practice section with suggestions for approaching subjects in different ways to take advantage of different intelligences. Can also be found online through Ohio's New Staff Orientation.

The Rogers Indicator of Multiple Intelligences <http://www.personal.psu.edu/staff/b/x/bxb11/MI/MIQuiz.htm>

The 49-item inventory provides results, but another valuable resource can be found at the Multiple Intelligence site <http://www.personal.psu.edu/staff/b/x/bxb11/MI/index.htm>; offering educators, instructors, and anyone who wants to learn the basics about Multiple Intelligences Theory valuable information.

Multiple Intelligence Inventory <http://www.ldrc.ca/projects/miinventory/miinventory.php>

A free 80-question inventory based on eight of Howard Gardner's multiple intelligences.

Having your students do one of these might provide information for them on effective learning strategies as well as provide you with information on effective teaching strategies. You might also find it helpful to do one or more of these yourself as it might give you information about your preferred learning style (and therefore preferred teaching style).

The literature basically indicates that there is wide acceptance of the concept of learning styles; however, there is disagreement on how to best measure learning styles (Coffield, et. al., 2004). Most researchers agree that we do have various learning styles and preferences, however, the research tends to agree that it is relative unimportant as it is far more important to match the presentation with the nature of the subject, such as providing correct learning methods, strategies, and context; than matching individual preferences (Coffield, 2004). For example, in a large meta-study, Marzano (1998) found that graphic and tactile representations of the subject matter had noticeable effects on learning outcomes, regardless of any attempt to match them with learners' modalities. Perhaps David Merrill (2000) has the best philosophy for using learning styles -- instructional strategies should first be determined on the basis of the type of content to be taught or the goals of the instruction and secondarily, learner styles and preferences are then used to adjust or fine-tune these fundamental learning strategies.

References

Coffield, F., Moseley, D., Hall, E., & Ecclestone, K. (2004). Learning styles and pedagogy in post-16 learning: A systematic and critical review. [www.LSRC.ac.uk: Learning and Skills Research Centre](http://www.lsda.org.uk/files/PDF/1543.pdf). Retrieved March 9, 2010: <http://www.lsda.org.uk/files/PDF/1543.pdf>.

Conner, Marcia & Hodgins, Wayne (September 14, 2000). *Learning Styles*. Retrieved March 9, 2010: <http://www.learnativity.com/learningstyles.html>.

Keefe, J. W. (1979) Learning style: An overview. In NASSP's *Student learning styles: Diagnosing and proscribing programs* (pp. 1-17). Reston, VA. National Association of Secondary School Principals.

Kolb, David A. 1984. *Experiential Learning: Experience as the Source of Learning and Development*. Prentice-Hall, Inc., Englewood Cliffs, N. J

Marzano, R. J. (1998). *A theory-based meta-analysis of research on instruction*. Mid-continent Regional Educational Laboratory, Aurora, CO.

Merrill, D. (2000). Instructional Strategies and Learning Styles: Which takes Precedence? In Robert Reiser and Jack Dempsey (Eds.) *Trends and Issues in Instructional Technology*. Prentice Hall.

Stewart, K. L., & Felicetti, L. A. (1992). Learning styles of marketing majors. *Educational Research Quarterly*, 15(2), 15-23.

The VARK Questionnaire: How Do I Learn Best?

This questionnaire aims to find out something about your preferences for the way you work with information. You will have a preferred learning style and one part of that learning style is your preference for the intake and output of ideas and information.

Choose the answer which best explains your preference and circle the letter next to it. Please circle more than one if a single answer does not match your perception.

Leave blank any question which does not apply, but try to give an answer for at least 10 of the 13 questions.

When you have completed the questionnaire, use the marking guide to find your score for each of the categories, Visual, Aural, Read/Write and Kinesthetic. Then, to calculate your preference, use the Scoring sheet.

1. You are about to give directions to a person who is standing with you.

She is staying in a hotel in town and wants to visit your house later.

She has a rental car. I would:

- a. draw a map on paper
- b. tell her the directions
- c. write down the directions (without a map)
- d. collect her from the hotel in my car

2. You are not sure whether a word should be spelled 'dependent' or 'dependant'. I would:

- a. look it up in the dictionary.
- b. see the word in my mind and choose by the way it looks
- c. sound it out in my mind.
- d. write both versions down on paper and choose one.

3. You have just received a copy of your itinerary for a world trip. This is of interest to a friend. I would:

- a. phone her immediately and tell her about it.
- b. send her a copy of the printed itinerary.
- c. show her on a map of the world.
- d. share what I plan to do at each place I visit.

4. You are going to cook something as a special treat for your family. I would:

- a. cook something familiar without the need for instructions.
- b. thumb through the cookbook looking for ideas from the pictures.
- c. refer to a specific cookbook where there is a good recipe.

5. A group of tourists has been assigned to you to find out about wildlife reserves or parks. I would:

- a. drive them to a wildlife reserve or park.
- b. show them slides and photographs
- c. give them pamphlets or a book on wildlife reserves or parks.
- d. give them a talk on wildlife reserves or parks.

6. You are about to purchase a new stereo. Other than price, what would most influence your decision?

- a. the salesperson telling you what you want to know.
- b. reading the details about it.
- c. playing with the controls and listening to it.
- d. it looks really smart and fashionable.

7. Recall a time in your life when you learned how to do something like playing a new board game. Try to avoid choosing a very physical skill, e.g. riding a bike. I learnt best by:
- visual clues -- pictures, diagrams, charts
 - written instructions.
 - listening to somebody explaining it.
 - doing it or trying it.
8. You have an eye problem. I would prefer the doctor to:
- tell me what is wrong.
 - show me a diagram of what is wrong.
 - use a model to show me what is wrong.
9. You are about to learn to use a new program on a computer. I would:
- sit down at the keyboard and begin to experiment with the program's features.
 - read the manual which comes with the program.
 - telephone a friend and ask questions about it.
10. You are staying in a hotel and have a rental car. You would like to visit friends whose address/location you do not know. I would like them to:
- draw me a map on paper.
 - tell me the directions.
 - write down the directions (without a map).
 - collect me from the hotel in their car.
11. Apart from the price, what would most influence your decision to buy a particular textbook?
- I have used a copy before.
 - a friend talking about it.
 - quickly reading parts of it.
 - the way it looks is appealing.
12. A new movie has arrived in town. What would most influence your decision to go (or not go)?
- I heard a radio review about it
 - I read a review about it.
 - I saw a preview of it.
13. Do you prefer a lecturer or teacher who likes to use?
- a textbook, handouts, readings
 - flow diagrams, charts, graphs.
 - field trips, labs, practical sessions.
 - discussion, guest speakers.

The VARK Questionnaire Scoring Chart

Use the following scoring chart to find the VARK category that each of your answers corresponds to.

Circle the letters that correspond to your answers

e.g. If you answered b and c for question 3, circle R and V in the question 3 row.

Scoring Chart

| Question | A | B | C | D |
|----------|---|---|---|---|
| 1 | V | A | R | K |
| 2 | R | V | A | K |
| 3 | A | R | V | K |
| 4 | K | V | R | - |
| 5 | K | V | R | A |
| 6 | A | R | K | V |
| 7 | V | R | A | K |
| 8 | A | V | K | - |
| 9 | K | R | A | - |
| 10 | V | A | R | K |
| 11 | K | A | R | V |
| 12 | A | R | V | - |
| 13 | R | V | K | A |

Calculating your scores

Count the number of each of the VARK letters you have circled to get your score for each VARK category.

Total number of **Vs** circled =

Total number of **As** circled =

Total number of **Rs** circled =

Total number of **Ks** circled =

Calculating your preferences

Use the “Scoring Instructions” sheet to work out your VARK learning preferences.

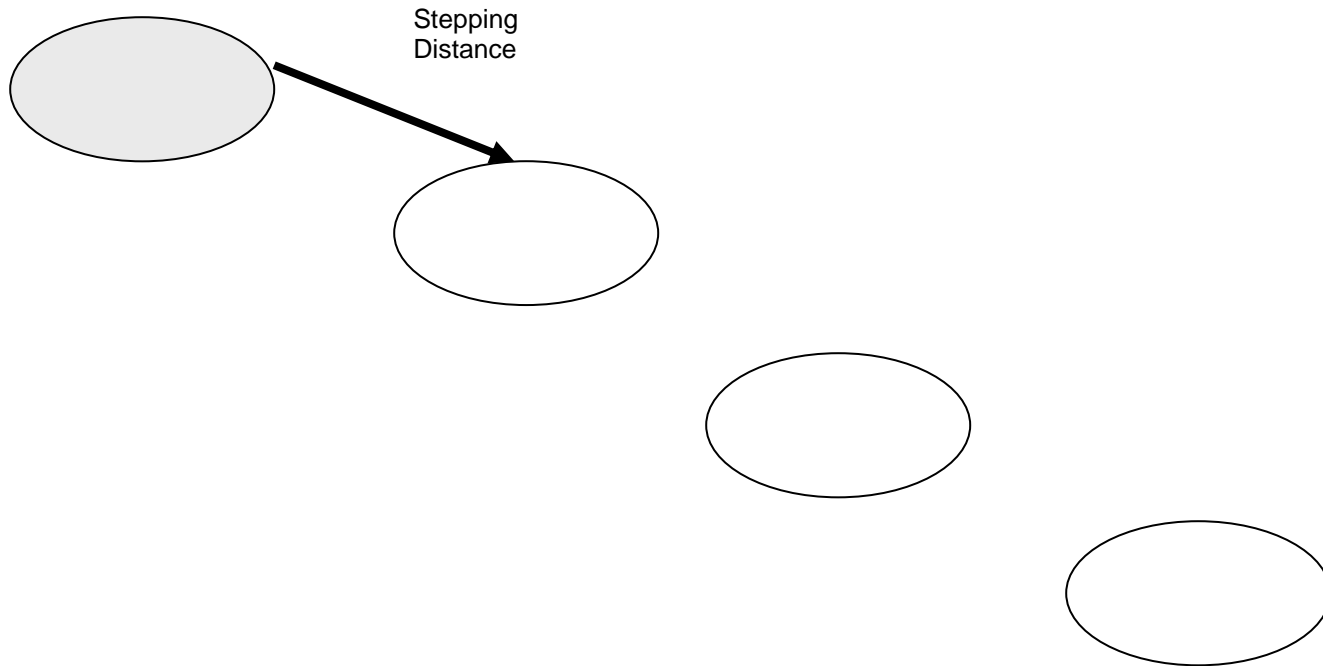
Copyright for this version of VARK is held by Neil D. Fleming, Christchurch, New Zealand and Charles C. Bonwell, Green Mountain, Colorado, USA

Scoring Instructions

Because respondents can choose more than one answer for each question the scoring is complex. It can be likened to a set of four stepping-stones across water.

1. Add up your scores, **V + A + R + K =**

2. Enter your scores from highest to lowest on the stones below, with their V, A, R, and K labels.



3. Your stepping distance comes from this table.

| Total of my four VARK scores is | My stepping distance is |
|---------------------------------|-------------------------|
| 10-16 | 1 |
| 17-22 | 2 |
| 23-26 | 3 |
| More than 26 | 4 |

3. Your first preference is your highest score so check the first stone as one of your preferences and enter its label on the stone.

4. If you can reach the next stone with a step equal to or less than your stepping distance then check that one too.

Once you cannot reach the next stone you have finished defining your set of preferences.

Administering the questionnaire

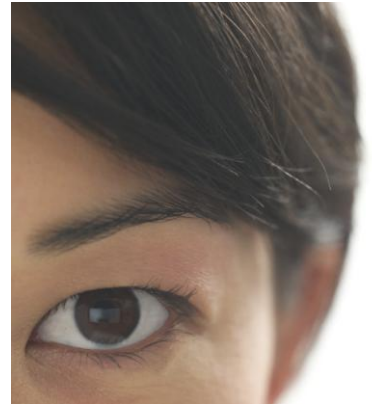
When you are instructing others to fill in the questionnaire they should be verbally advised to make a selection (a, b, c or d) for each question, but they may omit a question or choose two or three options if appropriate. Some may contest the meaning of words in the questionnaire and others may ask for additional contextual or situational information before they choose their answers. Avoid giving further information, as it may prejudice responses to the questions. Encourage them to choose more than one response if they think the context is not clear. Some may want to discuss the purpose of the questionnaire or its validity or reliability. Ask them to hold such questions till later when they can be more appropriately answered.

Stress, in whatever ways you can, that the results indicate their preferences but are not necessarily their strengths. This reduces the anxiety for respondents who may express the view that the questionnaire says they are not good readers or not visually strong.

You should make the point that some strong preferences may lessen as individuals mature. Work experiences and life experiences will blur differences between preferences as people learn to use aural, visual, read/write and kinesthetic modes equally well. Preferences may also be masked by experiences.

No one mode is superior and there is no superior profile. Although our academic institutions may be strongly read/write, life is much more varied. And you can be successful with almost any combination. You may be different but you are not dumb. Students and teachers can investigate the preferences shown and explore their own views about whether the preference fits. For example, a student with a strong visual (V) preference could be asked: *"How important is color in your life?" "Do you consider yourself a visual person?" "Are there aspects of your life where your visual preference is obvious?" "Do you think you have a strong sense of space or shape or position or location?" "Do the study strategies fit with what you do now?"*

Finally, some may ask questions about output preferences rather than input preferences. *"How is it that I like reading but I hate writing?"* Research indicates that those who have a strong preference for "taking in the world" in any particular mode (V, A, R, or K) will want to output in the same mode.



Visual Preference

This tells about how you like to take in information. One way is not better than another.

About You

You want to see the whole picture rather than parts of it.

You are interested in color and design and know where you are in your environment.

You prefer to draw or design instead of talk, read, or write.

You like different layouts and formats.

How You Learn and Study

You like it when teachers use gestures and descriptive language when explaining something. It helps when the teacher uses, logos, videos, posters, and slides and you like textbooks that have diagrams, pictures, charts and graphs along with the text. It also helps when there's lots of white space in what you are reading and if the text is in different colors or underlined/highlighted to show the important points.

When it's time to study, try to arrange the information in different ways. Redraw/rewrite pages from memory and replace words with symbols or logos. Try to convert printed information into your own pictures, charts or graphs. Use different colors and letter sizes.

You work best if others in your group are visual learners. Your group will feel comfortable exchanging ideas using drawings, diagrams, and charts.

When You Take a Test

When taking tests and answering questions you might try using diagrams, recalling the pictures your study pages made, and turning your visuals back into words.



Aural Preference

This tells about how you like to take in information. One way is not better than another.

About You

You would rather hear and discuss information than read it.

You learn best when you have a chance to discuss the information with someone else.

Because you might move your lips so you can “hear” what you are reading, your reading might be slowed down.

You like to listen to stories and/or poetry read aloud.

You like working in groups because you can discuss the information with others.

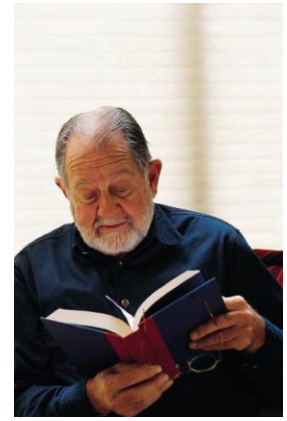
How You Learn and Study

The best way for you to learn is to listen to as much information as possible. You can do this by coming to all your classes. Discuss the information with other people including your teachers. You might also use a tape recorder to tape information and listen to it again. You remember any interesting examples or stories about the information. Describe any overheads, pictures, or visuals to someone who wasn't there. Leave lots of space in your notes to fill in information you remember after class. You should do this within 24 hours of the class. Read your notes aloud to yourself.

When You Take a Test

Imagine you are talking with the teacher as you answer the questions.

Imagine your teacher talking about the information.



Read/Write Preference

This tells about how you like to take in information. One way is not better than another.

About You

You believe the meanings are within the words, so any talk is OK but this handout is better.

You like to back up what you hear by reading about it.

You like to learn about the meanings of words.

One reason you like reading better than listening is because you can control how fast you take in information when you read.

You like to listen to people who use words well.

You make lists to help you remember what you have read and what you have to do.

You write to remember.

How You Learn and Study

You learn best when teachers have information in handouts, when you use headings and lists to take notes, and when you read information in books and manuals. Since you like words and might try to write everything in your notes. Summarize your notes within 24 hours of writing them.

To study, you should write the information several times and summarize in print as you read your notes over. You should organize information from charts and graphs by writing it out in sentences and reading it. You could also write information from books and handouts into your own words. Also, put information into categories and arrange information in order of importance. Write the information into multiple choice questions when you are getting ready for a test.

When working in a group you might prefer to read and write to, and with, the other group members instead of having a discussion.

When You Take a Test

You like multiple choice and essay tests and you like arranging the information into points and the order of its importance.



Kinesthetic Preference

This tells about how you like to take in information. One way is not better than another.

About You

You want to experience the information so you can understand it.

You like ideas that are practical, real, and relevant to you.

You need to do things to understand.

You like to learn by doing things and trying things out for yourself.

You like to try things to see how they work before you read the instructions.

How You Learn and Study

You learn best when you can use all your senses and you like hands-on learning like labs, field trips, and trial and error. You like teachers who use real life examples and who help you apply what you are learning. You also learn best when you can work with models or collections that illustrate the information. You are helped by videos showing new ideas.

In your notes and when you are studying, use lots of examples, case studies and applications. Use real pictures that illustrate the information. Recall the experiments, field trips, etc. When you are getting ready for a test, write practice answers and role play the test situation in your own room.

You like working in groups as long as there is more doing than talking and you learn from the experiences of others.

When You Take a Test

Use lots of examples in your answer.

Because you would rather show what you know, it might be hard for you to sit and read a test and write the answers.



<http://www.wisconline.org>

Learning Styles

Author: Kathryn Lich

School: Fox Valley Technical College **Date:** 6/5/2001

Description: Students identify their learning styles and effective study techniques. They complete a linked online inventory, and are provided key words for further research. They summarize their findings in a written report.

http://www.wisc-online.com/objects/index_tj.asp?objID=PHR1501

How Do I Learn Best Learning Objects