Learning Styles

This module covers concepts such as

- Identifying and classifying learning styles
- Identifying your personal learning style
- Improving learning and communication skills using understanding of learning styles

www.jcu.edu.au/students/learning-centre
Learning Styles

Knowledge of your own and others' preferred learning styles can be of great benefit to your study at university as well as any aspect of your life that involves teaching and learning. Now that just about covers everything!

This workshop explains a common way of classifying learning styles, making use of an *Index of Learning Styles* (ILS) developed by Richard Felder and Barbara Solomon. The ILS is a questionnaire designed to assess your learning style preferences. For further information on this method of classifying learning styles, search “Felder-Soloman” online.

**Learning Style Preferences**

The following three steps will help to determine your learning style preferences:

1. Answer the ILS – the 44 questions.

Enter your answers on the ILS scoring sheet on page 4;

2. Transfer your scores to the ILS report form, also on page 4;

3. Interpret your results, referring to the description provided of each learning style.

Note: It would be better to follow these steps in order (i.e. don’t read the description of each learning style until after you have completed the 44 questions, otherwise you may unknowingly influence your results).

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**Index of Learning Styles (ILS)**

Enter your answers to every question on the ILS scoring sheet. Please choose only one answer for each question. If both “a” and “b” seem to apply to you, choose the one that applies more frequently.

1. I understand something better after I
   a) try it out
   b) think it through

2. I would rather be considered
   a) realistic
   b) innovative

3. When I think about what I did yesterday, I am most likely to get
   a) a picture
   b) words

4. I tend to
   a) understand details of a subject but may be fuzzy about its overall structure
   b) understand the overall structure but may be fuzzy about details

5. When I am learning something new, it helps me to
   a) talk about it
   b) think about it

6. If I were a teacher, I would rather teach a course
   a) that deals with facts and real life situations
   b) that deals with ideas and theories

7. I prefer to get new information in
   a) pictures, diagrams, graphs, or maps
   b) written directions or verbal information

8. Once I understand
   a) all the parts, I understand the whole thing
   b) the whole thing, I see how the parts fit

9. In a study group working on difficult material, I am more likely to
   a) jump in and contribute ideas
   b) sit back and listen

The ILS and scoring sheet were downloaded from: [http://www4.ncsu.edu/unity/lockers/users/f/felder/public/ILSdir/ILS.pdf](http://www4.ncsu.edu/unity/lockers/users/f/felder/public/ILSdir/ILS.pdf)
You can also complete the ILS online at: [http://www.engr.ncsu.edu/learningstyles/ilsweb.html](http://www.engr.ncsu.edu/learningstyles/ilsweb.html)
10. I find it easier
   a) to learn facts
   b) to learn concepts

11. In a book with lots of pictures and charts, I am likely to
   a) look over the pictures and charts carefully
   b) focus on the written text

12. When I solve math problems
   a) I usually work my way to the solutions one step at a time
   b) I often just see the solutions but then have to struggle to figure out the steps to get to them

13. In classes I have taken
   a) I have usually gotten to know many of the students
   b) I have rarely gotten to know many of the students

14. In reading nonfiction, I prefer
   a) something that teaches me new facts or tells me how to do something
   b) something that gives me new ideas to think about

15. I like teachers
   a) who put a lot of diagrams on the board
   b) who spend a lot of time explaining

16. When I’m analyzing a story or a novel
   a) I think of the incidents and try to put them together to figure out the themes
   b) I just know what the themes are when I finish reading and then I have to go back and find the incidents that demonstrate them

17. When I start a homework problem, I am more likely to
   a) start working on the solution immediately
   b) try to fully understand the problem first

18. I prefer the idea of
   a) certainty
   b) theory

19. I remember best
   a) what I see
   b) what I hear

20. It is more important to me that an instructor
   a) lay out the material in clear sequential steps
   b) give me an overall picture and relate the material to other subjects

21. I prefer to study
   a) in a study group
   b) alone

22. I am more likely to be considered
   a) careful about the details of my work
   b) creative about how to do my work

23. When I get directions to a new place, I prefer
   a) a map
   b) written instructions

24. I learn
   a) at a fairly regular pace. If I study hard, I’ll “get it”
   b) in fits and starts. I’ll be totally confused and then suddenly it all “clicks”

25. I would rather first
   a) try things out
   b) think about how I’m going to do it

26. When I am reading for enjoyment, I like writers to
   a) clearly say what they mean
   b) say things in creative, interesting ways

27. When I see a diagram or sketch in class, I am most likely to remember
   a) the picture
   b) what the instructor said about it

28. When considering a body of information, I am more likely to
   a) focus on details and miss the big picture
   b) try to understand the big picture before getting into the details

29. I more easily remember
   a) something I have done
   b) something I have thought a lot about

30. When I have to perform a task, I prefer to
   a) master one way of doing it
   b) come up with new ways of doing it
31. When someone is showing me data, I prefer
   a) charts or graphs
   b) text summarizing the results

32. When writing a paper, I am more likely to
   a) work on (think about or write) the beginning of the paper and progress forward
   b) work on (think about or write) different parts of the paper and then order them

33. When I have to work on a group project, I first want to
   a) have “group brainstorming” where everyone contributes ideas
   b) brainstorm individually and then come together as a group to compare ideas

34. I consider it higher praise to call someone
   a) sensible
   b) imaginative

35. When I meet people at a party, I am more likely to remember
   a) what they looked like
   b) what they said about themselves

36. When I am learning a new subject, I prefer to
   a) stay focused on that subject, learning as much about it as I can
   b) try to make connections between that subject and related subjects

37. I am more likely to be considered
   a) outgoing
   b) reserved

38. I prefer courses that emphasize
   a) concrete material (facts, data)
   b) abstract material (concepts, theories)

39. For entertainment, I would rather
   a) watch television
   b) read a book

40. Some teachers start their lectures with an outline of what they will cover. Such outlines are
   a) somewhat helpful to me
   b) very helpful to me

41. The idea of doing homework in groups, with one grade for the entire group,
   a) appeals to me
   b) does not appeal to me

42. When I am doing long calculations,
   a) I tend to repeat all my steps and check my work carefully
   b) I find checking my work tiresome and have to force myself to do it

43. I tend to picture places I have been
   a) easily and fairly accurately
   b) with difficulty and without much detail

44. When solving problems in a group, I would be more likely to
   a) think of the steps in the solution process
   b) think of possible consequences or applications of the solution in a wide range of area

It may be interesting to see how this test rates your preferences but remember that the most useful thing is simply being aware of what your preferences may be and to be aware of the range of learning style preferences of those around you - including your lecturers!

If you do find you have a moderate or high preference for a particular style, read some suggestions on page 6 of how you may improve your learning.
**ILS SCORING SHEET**

1. Tick a or b for each of the 44 questions in the spaces below, then;
2. Total the columns and write the totals in the indicated spaces.
3. For each of the four scales, subtract the smaller total from the larger one. Write the difference (1 to 11) and the letter (a or b) for which the total was larger on the bottom line. *For example, if under “ACT/REF” you had 4 “a” and 7 “b” responses, you would write “3b” on the bottom line under that heading.*
4. On the ILS report form below, mark “x”s above your scores on each of the four scales.

<table>
<thead>
<tr>
<th>ACT/REF</th>
<th>SNS/INT</th>
<th>VIS/VRB</th>
<th>SEQ/GLO</th>
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**ILS REPORT FORM**

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<td>1b 3b 5b 7b 9b 11b</td>
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Preferences: HIGH MODERATE BALANCED MODERATE HIGH
### Description of Learning Styles

<table>
<thead>
<tr>
<th><strong>Active learners</strong> understand new information by doing something with it. Active learners are keen to try out and experiment with the new information and often enjoy group work because this enables them to do active things. Sitting through lectures with nothing to actually get involved in can be particularly difficult for active learners.</th>
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<tr>
<td><strong>Reflective learners</strong> prefer to think about new information first before acting on it. They often prefer to think through problems first on their own rather than discussing it in groups. Sitting through lectures can be difficult for reflective learners who often like to have some time out to think through new information.</td>
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<td><strong>Sensing learners</strong> like learning facts and solving problems by using well-established methods. They are generally careful, practical and patient and like new knowledge to have some connection to the real world.</td>
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<td><strong>Intuitive learners</strong> prefer discovering new relationships and can be innovative in their approach to problem solving. Intuitive learners tend to work faster and dislike repetition and work which involves a lot of memorisation and routine.</td>
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<td><strong>Visual learners</strong> understand new information best by seeing it in such forms as pictures, demonstrations, diagrams, charts and films.</td>
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<td><strong>Verbal learners</strong> understand new information best through written and spoken words.</td>
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<td><strong>Sequential learners</strong> understand new information in linear steps where each step follows logically from the previous one.</td>
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<td><strong>Global learners</strong> tend to learn in large jumps by absorbing material in a random order without necessarily seeing any connections until they have grasped the whole concept.</td>
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Description of Learning Styles continued

How can active learners help themselves?
If you are an active learner in a class that allows little or no class time for discussion or problem-solving activities, you should try to compensate for these lacks when you study. Study in a group in which the members take turns explaining different topics to each other. Work with others to guess what you will be asked on the next test and figure out how you will answer. You will always retain information better if you find ways to do something with it.

How can reflective learners help themselves?
If you are a reflective learner in a class that allows little or no time for thinking about new information, you should try to compensate for this lack when you study. Don’t simply read or memorise the material. Stop periodically to review what you have read and to think of possible questions or applications. You might find it helpful to write short summaries of readings or class notes in your own words. Doing so may take extra time but will enable you to retain the material more effectively.

How can sensing learners help themselves?
Sensors remember and understand information best if they can see how it connects to the real world. If you are in a class where most of the material is abstract and theoretical, you may have difficulty. Ask your lecturer for specific examples of concepts and procedures, and find out how the concepts apply in practice. If the teacher does not provide enough specifics, try to find some in your course text or other references or by brainstorming with friends or classmates.

How can intuitive learners help themselves?
Many university lecture classes are aimed at intuitors. However, if you are an intuitor and you happen to be in a class that deals primarily with memorisation and rote substitution in formulas, you may have trouble with boredom. Ask your lecturer for interpretations or theories that link the facts, or try to find the connections yourself. You may also be prone to careless mistakes on tests because you are impatient with details and don’t like repetition (as in checking your completed solutions). Take time to read the entire question before you start answering and be sure to check your results.

How can visual learners help themselves?
If you are a visual learner, try to find diagrams, sketches, schematics, photographs, flow charts, or any other visual representation of course material that is predominately verbal. Ask your lecturer, consult reference books, and see if any visual displays of the course material are available. Prepare a concept map by listing key points, enclosing them in boxes or circles, and drawing lines with arrows between concepts to show connections. You could also colour-code your notes with a highlighter so that everything relating to one topic is the same colour.

How can verbal learners help themselves?
Write summaries or outlines of course material in your own words. Working in groups can be particularly effective: you gain understanding of material by hearing classmates’ explanations and you learn even more when you do the explaining.

How can sequential learners help themselves?
Most university courses are taught in a sequential manner. However, if you are a sequential learner and you have an instructor who jumps around from topic to topic or skips steps, you may have difficulty following and remembering. Ask the lecturer to fill in the skipped steps, or fill them in yourself by consulting references. When you are studying take the time to outline the lecture material for yourself in logical order. In the long run doing so will save you time. You might also try to strengthen your global thinking skills by relating each new topic you study to things you already know. The more you can do so, the deeper your understanding of the topic is likely to be.

How can global learners help themselves?
If you are global learner, it can be helpful for you to realise that you need the big picture of a subject before you can master details. If your lecturer plunges directly into new topics without bothering to explain how they relate to what you already know, it can cause problems for you. Fortunately, there are steps you can take that may help you get the big picture more rapidly. Before you begin to study the first section of a chapter in a text, skim through the entire chapter to get an overview. Instead of spending a short time on every subject every night, you might find it more productive to immerse yourself in individual subjects for large blocks. Try to relate the subject to things you already know, either by asking the lecturer to help you see connections or by consulting references.