

Learning Styles Evaluator on the TI-83+/84+

run the program **LEARNING**

LEARNING STYLES
v1.0 BY N HOPLEY 2003

For each set of 4 statements
decide how they refer to you

4pts = most appropriate
3pts
2pts
1pt = least appropriate

This program has been written to help teachers assess the various preferred learning styles of their students.

It draws upon the work of David Kolb and the categorisation of four learning approaches of Concrete Experience, Reflective Observation, Abstract Conceptualisation and Active Experimentation.

It is important to note that students learn in all four styles, but they normally learn best by starting in and using one style the most.

The user is presented with 9 sets of 4 statements (illustrated below) that they must award points to according to the appropriateness of those statements to themselves. 4 points are awarded to the statement most appropriate, going down to 1 point for the least appropriate statement.

Qn:1 4=most 1=least
? I like to get involved
I like to take my time before acting
I am particular about what I like
I like things to be useful

Qn:2 4=most 1=least
? I am open to new experiences
I like to look at all sides of issues
I like to analyse things and break them down into bits
I like to try things out

Qn:3 4=most 1=least
? I like to follow my feelings
I like to watch
I like to think about things
I like to be doing things

Qn:4 4=most 1=least
? I accept people and situations the way they are
I like to be aware of what's around me
I like to evaluate
I like to take risks

Qn:5 4=most 1=least
? I have gut feelings and hunches
I have a lot of questions
I am logical
I am hard working and get things done

Qn:6 4=most 1=least
? I like concrete things that I can see, feel or smell
I like to observe
I like ideas and theories
I like to be active

Qn:7 4=most 1=least
? I prefer learning here and now
I like to consider things and reflect about them
I tend to think about the future
I like to see results from my work

Qn:8 4=most 1=least
? I rely on my feelings
I rely on my own observations
I rely on my own ideas
I have to try things out for myself

Qn:9 4=most 1=least
? I am energetic and enthusiastic
I am quiet and reserved
I tend to reason things out
I am responsible about things

- The **UP** and **DOWN** arrow keys are used to move the cursor between the statements and the digit keys 1, 2, 3 and 4 are used to rate each statement.
- Once each of the numbers 1, 2, 3 and 4 have been allocated, the user can either press **ENTER** to submit, or continue to edit their point allocation.

- The user completes this process for all 9 sets of statements, after which their responses are analysed and the user is categorised into one of Kolb's four learning styles. A plot is also displayed showing where the user would be placed on a four-quadrant diagram of all the learning styles.

(refer to the following pages to read the text that is displayed on the calculator for the user to read, over a succession of screens.)

```
-R- ENTER>next CLEAR>Quit
You are a REALIST
- you are most interested in
end results
- you like to know how things
work
- you learn by testing
theories in ways that seem
most sensible 1/4
```

- We learn from all four styles, but one of the four is our favourite.
- The ideal training environment would include each of the four processes, for example
 - i) the cycle might begin with the learner's personal involvement through concrete experiences
 - ii) next the learner reflects on this experience, looking for meaning
 - iii) then the learner applies this meaning to form a logical conclusion
 - iv) and finally, the learner experiments with similar problems, which result in new concrete experiences.
- The learning cycle might then continue again due to new and different experiences.
- The teaching should be flexible so that each learner could spend additional time on his or her preferred learning style.
- Also, the learner can enter the learning cycle at any one of the four stages.

Websites (for more information):

<http://www.nwlink.com/~donclark/hrd/learning/styles.html#kolb>

<http://www.infed.org/biblio/b-explrnm.htm#learning%20style>

Watcher

- likes to clearly understand the underlying ideas
- likes to participate personally - no good if others do the thinking
- learns by listening and sharing ideas
- enjoys learning for its own sake
- is a "people person"
- has lots of ideas and imagination
- sees situations from several viewpoints
- models themselves on those people whom they respect

Strength: innovation and imagination

You learn best by

- taking notes
- brainstorming
- having thinking time

Thinker

- likes knowing facts
- likes to know what the experts think
- likes to think things through carefully, logically and based on facts
- less interested in people than ideas
- thorough and industrious
- re-examines facts if things become puzzling
- enjoys traditional classrooms

Strength: creating concepts and models

You learn best by

- listening to lectures
- reading for yourself
- linking ideas together

Realist

- most interested in the end result
- likes to know how things work
- learns by testing theories in ways that seem most sensible
- only picks up the important bits
- likes hands-on experiences
- resents being given answers when solving problems
- prefers precise ideas and has limited tolerance for "fuzzy ideas"
- likes to know how things will help them in real life
- decisive

Strength: practical application of ideas

You learn best by

- doing practical activities
- observing things for yourself
- knowing how ideas might be used in practice

Activist

- likes taking chances
- likes to know what can be done with things
- learns by trial and error and self-discovery
- likes adapting to change and being flexible
- can sometimes be seen as pushy
- often reaches accurate conclusions without any logical reasons

Strength: seeing things through to the end

You learn best by

- studying independently
- taking a risk and trying things out

Watcher

– noting down your thoughts about solving equations.

– thinking about what you've just done

– thinking about riding and watching another person ride a bike

– watching how other people coach.

Future Careers

People with this learning style tend to become counsellors, organisational development specialists and personnel managers.

They have broad cultural interests and tend to specialise in the arts.

This style characterises individuals from humanities and liberal arts backgrounds.

Thinker

– listening to explanations on what it all involves.

– reading the manual

– understanding the theory and having a clear grasp of the biking concept.

– reading up on the pros and cons of different methods

Future Careers

Theorists are often found in research and planning departments.

This learning style is more characteristic of basic science and mathematics than applied sciences.

Realist

You would learn to solve algebraic equations by...

– going step-by-step through an equation.

– using the help feature to get some expert tips.

– receiving practical tips and techniques from a biking expert.

– having a coach guide them in coaching someone else.

Future Careers

The pragmatist's greatest strength is in the practical application of idea.

They prefer to deal with things rather than people.

They tend to have narrow technical interests and quite often choose to specialise in the physical sciences.

Activist

– practising them.

– jumping in and doing whatever you needed to do with it

– leaping on the bike and having a go at it.

– using your people skills with what you have learned to achieve your own coaching style.

Future Careers

They are called activists because they excel in adapting to specific immediate circumstances.

They tend to solve problems intuitively, relying on others for information.

Activists are often found working in marketing and sales.

The activist is at ease with people but is sometimes seen as impatient and pushy.

This learner's educational background is often in technical or practical fields such as business.

Watchers

These learners are:

- imaginative.
- innovative.
- divergent thinkers

The Teacher should...

- allow plenty of reflection time
- guide them - don't tell them
- should provide external benchmarks by which students may assess themselves
- regularly give students chances to think creatively about the subject
- actively encourage them to ask questions (eg set aside time and as an exercise ask them to think up questions about a particular topic)
- put unusual situations to them and encourage speculation:
 - what could have caused this
 - what might happen if
 - how could we improve ...
- ask open-ended questions and then give students credit for divergent thinking
- give them credit for intuition

Teacher Information Sheet

Thinkers

These learners are:

- logical thinkers
- gathers of concepts and abstract information.

The Teacher should

- use examples
- provide background readings
- allow time for thinking alone
- give this learner a clear factual and conceptual foundation
- encourage accuracy of recall
- place value on “understanding” and logical reasoning
- encourage students to look for patterns
- encourage students to be receptive to new ideas

Realists

These learners are:

- happy to practice skills
- happier doing structured practical work.
- wanting to use practical applications of their knowledge.

The Teacher should

- allow peer feedback
- use practical skills
- be a coach or helper
- emphasise the relevance of the content of the lesson
- encourage students to plan their work (eg draughting an essay, etc)
- encourage students to design experiments to test their theories
- teach students to record their work through a variety of note making techniques
- teach specific learning skills eg listening, recall, etc.

Activists

These learners are:

- good with open-ended experimentation.
- happy to start their own work
- keen to try things and learn from their mistakes.

The Teacher should

- allow students time to practice skills
- incorporate problem solving into lessons
- allow small group discussions and peer feedback
- leave the student to decide whether things are relevant, or not
- let the students pursue their own ideas, make mistakes and follow “blind alleys”
- encourage initiative and independence
- encourage skills, concepts and knowledge to be used in a variety of situations (eg out of their original context)
- force students to test their own knowledge to see if it's good enough
- give credit to “gut” feelings which may be correct but which have no basis in logic
- anticipate the resource implications of having student-led learning in their classroom.

Watchers

Thinkers

Realists

Activists

S1

S2

S3

S4

S5

S6