

Kolb's Learning Style Inventory

With this learning style inventory you can discover your own preference learning style. This gives you information about the way you usually acquire a new skill or solve a problem. Your way of learning is not better or worse than someone else's way. It is just the way that you feel most comfortable with.

Part A: The survey

The survey consists of 9 rows of statements (see next page). In each row, you need to rank the four statements. You need to give a different score to each statement as follows:

- Give 4 points to the statement that describes you best in your natural approach.
- Give 3 points to the statement that describes you second best in your natural approach.
- Give 2 points to the statement that describes you third best in your natural approach.
- Give 1 point to the statement that describes you fourth best in your natural approach.

Use a broad context in which you approach new situations, then the survey will approximate your preference learning style best. A broad context meaning: If you had a free choice how to learn a new skill or solve a problem, how would you start? It is thus important to do the inventory from a personal context, not (just) work related. Please note that there are no right or wrong answers.

Make sure you give a different score to each statement. Perhaps you approve some statements in one row equally. Then still give the best one 4 points, and the other ones 3, 2 and 1 point.

Part B: The results

Once you have given 4, 3, 2 or 1 point to all statements, please add up these points according to the diagram below. Pay attention: not all statements participate.

Column I (CE)	Column II (RO)	Column III (AC)	Column IV (AE)
2A:	1B:	2C:	1D:
3A:	3B:	3C:	3D:
4A:	6B:	4C:	6D:
5A:	7B:	5C:	7D:
7A:	8B:	8C:	8D:
8A:	9B:	9C:	9D:
Total CE:	Total RO:	Total AC:	Total AE:

SURVEY

Classify all statements 4,3,2,1: 4 describes your best, 1 describes you least.

Please pay attention: equal scores are not allowed!

	A	B	C	D
1	You particularly look for differences or distinctions	In the first place you would like to try out things	You feel involved in what is happening	You are focused on the practical application
Scores				
2	You are receptive for new things	If something happens, you are focused on getting to the point	You are analytical	You tend to be unbiased
Scores				
3	You especially pay attention to your feelings and experiences	Most of all you are observant	Most of all you think	Most of all you are doing something
Scores				
4	You take things as they are	You take a risk with your words or actions	You generally have value judgments	You always try to be fully aware of what is happening
Scores				
5	You listen to your intuition a lot	You are focused on doing things	In the first place you try to think logically	You have an inquiring approach most of the time
Scores				
6	Abstraction and conceptualization is important to you	You observe and listen a lot	Your attention is more on specific than on abstract language use	You are most of all active
Scores				
7	You are particularly focused on the present, the here-and-now	You let everything pass through your mind and you think about it	You are particularly focused on what will happen in the future	Your approach is most of all pragmatic, useful and solution-minded
Scores				
8	You learn particularly by having experiences	You collect data and information especially by observing	You learn especially by arranging matters for yourself and looking for consistency in a reference framework	You learn especially by reviewing ideas and presumptions and by experimenting with them in new situations
Scores				
9	You mostly react on what you are feeling	You preferably keep some distance to what is happening	Your approach to what is happening is mostly rational	You think of yourself as active and partially responsible for what happens
Scores				

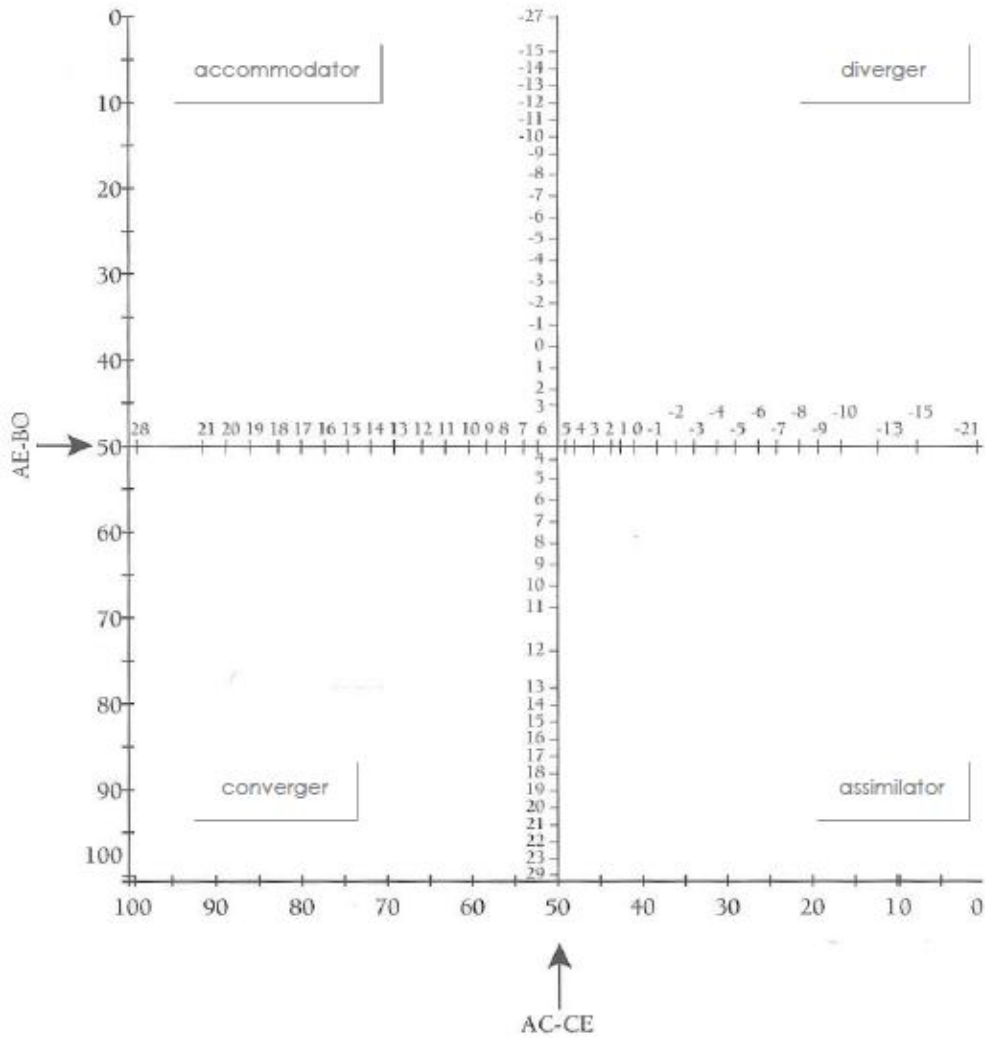
Part C: Defining your preference learning style

Next calculate these subtractions using the scores from page 1:

Total AC .. - *Total CE* .. = ..

Total AE .. - *Total RO* .. = ..

Put the first outcome on the vertical scale below (AC-CE). Put the second outcome on the horizontal scale below (AE-RO). Now use the scales as X- and Y-coordinates and mark the corresponding outcome in one of the quadrants. This indicates your preference learning style.

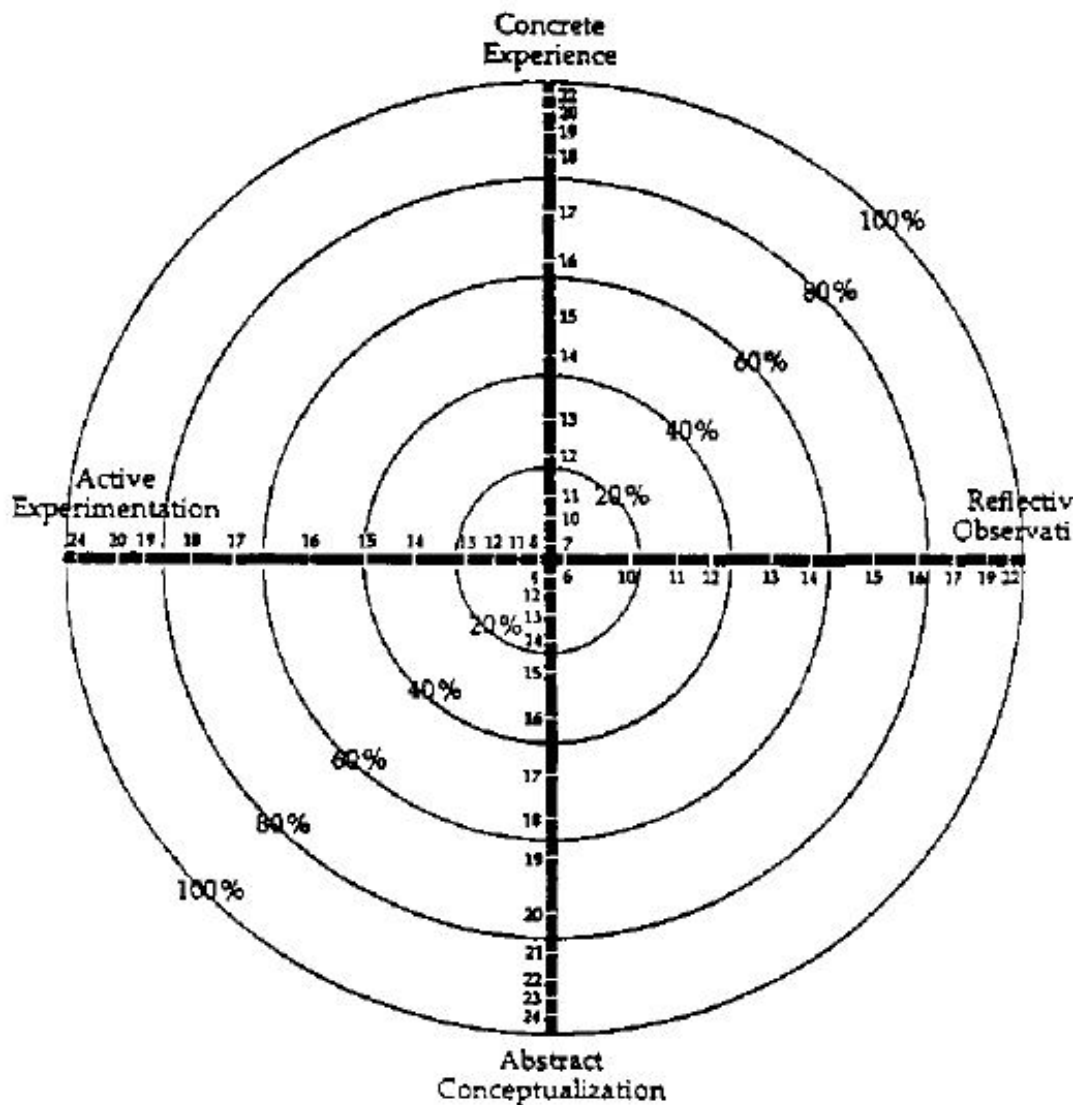


Part D: Constructing your 'Kolb kite'

Now fill the diagram below as follows:

1. On the CE-scale you put the total points of column I,
2. On the RO-scale you put the total points of column II,
3. On the AC-scale you put the total points of column III,
4. On the AE-scale you put the total points of column IV.

Draw a line from the CE-point to the RO-point, etc., and a tetragon arises. This is a graphic reproduction of your own learning cycle (the so-called 'Kolb kite'). The Kolb kite gives you information on how much you use each learning style and what is your potential area of development.



During the course we will use these results to analyse your time management approach and to define directions for possible improvement.

Kolb's learning styles

Literature: Kolb D.A. (1984) 'Experiential Learning experience as a source of learning and development', New Jersey

Introduction

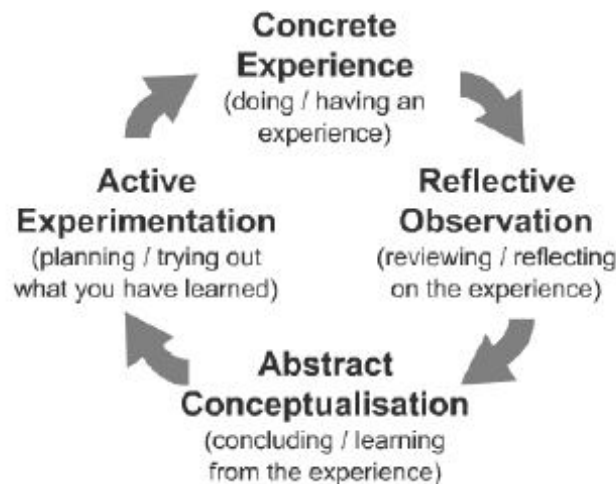
People differ rather in the way they learn. Learning can be seen as a process that eventually leads to behavioural change. In this process several phases can be distinguished, such as collecting information, reviewing new insights or reflecting on the things that happen to you. The psychologist Kolb studied the several ways in which people learn, and he distinguished four ways of learning, that he could relate to different phases which are dependent on each other. These four learning phases can be described in terms of the skills that are used in each phase:

- CE: Concrete Experience ('feeling')
- RO: Reflective Observation ('watching and listening')
- AC: Abstract Conceptualization ('thinking')
- AE: Active Experimentation ('doing')



Four phases of learning

These four phases of learning logically follow each other: if you experience something (concrete experience) it is important to consider your experiences afterwards (reflective observation) and to make a generalization (abstract conceptualization). You can then consider an appropriate action which you can do when dealing with a corresponding situation (active experimentation). If you really execute this action, i.e. new learned behaviour, then you have a new experience (concrete experience) on which you can reflect (reflection), and that gives you new insights (conceptualization). And so on, and so on.



Using this model it is possible to arrange all kinds of different learning experiences. Kolb described an ideal learning model that you can use to structure your own learning process according to this model. According to Kolb the four phases repeat themselves continuously in the described order. His learning model can therefore be seen as a cyclic model (more a diagram, because the level increases).

Order and starting point

It is not always necessary to start with a concrete experience. However, you can say that after your birth every person starts with experience and therefore concrete experience is the natural beginning of learning. But in later life the following applies: if you for example must operate an electronic device for the first time, you can choose from several approaches to find out how the thing works.

First, you can press all kinds of buttons (experimentation) and look what happens (experience and probably also reflection). Secondly, you can reflect on what you already know about similar devices, because as far as their application they look alike (reflection) and then you can try to build an idea how to operate it (conceptualization) and then try this in practice (experimentation). Another possibility is that you ask someone how the device should be used (experience), so that you can get an idea about its operation (reflection, conceptualization), that you then bring into practice (experimentation).

Furthermore it is possible to pass through the learning phases in another order or to skip a phase. However, when phases are skipped or are passed through too quickly, the learning output decreases. The value of your experience increases if you reflect on it, and insights become more useful if you try them out (experiment) and if you review them (experience, reflection).

Personal preference

So now it is clear that you can see each learning process as a cyclic process consisting of four phases which, in an ideal situation, are always passed through in the same order, but not always from the same starting point. Everybody has, however, a personal preference for a certain phase from the learning cycle: you preferably start at one certain phase or you spend the most of time in one particular phase. This preference indicates your natural approach in your way of learning. Through education and working experience you develop other learning styles as well. But the preference learning style will still be your natural preference to start, and will feel as most comfortable to you.

Kolb discovered that people are tended to develop especially the learning style which they prefer and master already. He pleaded therefore that people also give attention to the styles they master less. The learning cycle can then be passed through more completely and be more balanced, which leads to more efficiency and more effectivity in learning.

Four learning styles

The preferred learning style reflects a tendency rather than an absolutism and people may adopt different learning styles in different situations, but they tend to favour some learning behaviours in preference to others. Kolb identified four learning styles with a different way of solving problems:

- *Accommodators* - carry out plans and experiments and adapt to immediate circumstances.
- *Divergers* - view situations from many perspectives and rely heavily upon brainstorming and generation of ideas.
- *Assimilators* - use inductive reasoning and have the ability to create theoretical models.
- *Convergers* - rely heavily on hypothetical-deductive reasoning.

Left to their own devices people tend to do what is easiest for them, which is to use their own preference learning style. Similarly individual teachers may teach in ways that reflect their own preference learning style.

The Diverger ('Dreamer')

Divergers view situations from many perspectives and rely heavily upon brainstorming and generation of ideas.

Characteristics

Divergers have characteristics opposite of convergers. Their greatest strengths lie in creativity and imaginative ability. A person with this learning style excels in the ability to view concrete situations from many perspectives and generate many ideas such as in a brainstorming session. Research shows that divergers, as accommodators, are interested in people, and they tend to be imaginative and emotional. They often are interested in the arts and could have humanities or liberal arts backgrounds. Science researchers, counselors, organizational development specialists, and personnel managers tend to be characterized by this learning style.

You will find divergers preferably in:

- Science
- Research
- Languages
- History
- Philosophy
- Sociology
- Arts

Comfortable learning environments for divergers are

- When allowed to observe and gather a wide range of information.
- Sufficient possibilities to get to know other group members.
- Time and space to compare notes and to express ideas and feelings.
- Come into contact with several visions.
- Do not set a time limit or deadline: divergers don't like these at all.
- The way of working should be experienced as safe.
- Divergers learn better and more if they are encouraged by others.

Comfortable activities for divergers are

- Seek several opinions concerning a problem: this is stimulating.
- Give yourself time and space to deal with experiences and to express feelings.
- You learn best when the learning content is explained with examples (visually).
- You need to first observe how something works before you have an opinion.
- You need to examine situations in several ways.
- You want to look for the meaning of situations.
- Make a thinking plan in advance, thinking of all the possibilities to examine.

Therefore if you want to develop the diverging learning style plan time to 'dream'.

You could use some of these tools to develop a diverging learning style: dairies, peer appraisal, listening exercises, questions, increasing awareness of feelings, silent demonstrations, shared time and mutual interviewing.

The Assimilator ('Thinker')

Assimilators use inductive reasoning and have the ability to create theoretical models.

Characteristics

Assimilators are polar opposites of accommodators. Their greatest strengths lie in the ability to understand and create theories. A person with this learning style excels in inductive reasoning and in synthesizing various ideas and observations into an integrated whole. Assimilators are less interested in people and more concerned with abstract concepts, and are less concerned with the practical use of theories. For assimilators it is more important that the theory is logically sound and precise; in a situation where a theory or plan does not fit the "facts", the assimilator tends to disregard or re-examine the facts. As a result, this learning style is more characteristic of master sciences rather than bachelor sciences (meaning more scientific than practical). Assimilators often choose careers involving research and planning.

You will find assimilators preferably in:

- Astronomy
- Chemistry
- Classic languages
- Earth sciences
- Economics
- Mathematics
- Physics

Comfortable learning environments for assimilators are

- When presented with sound logical theories to consider.
- Studying the learning content independently and integrate it within their own thinking world.
- Order and rest in the learning or working place.
- The possibility to gather background information.
- Difficult and complex questions are considered as a challenge.
- A clear program and clear (learning) goals.
- Individual work is preferred.

Comfortable activities for assimilators are

- You want to know why you need to learn something, so ask for it.
- You need order and rest in your working place and space, so take care of this.
- Give yourself time to discover the how, what and why for yourself.
- You need thinking challenges and complex questions: you will get bored otherwise.
- You need to understand the situation entirely before you go to work.
- You need to think logically about ideas.
- Make an organized and structured planning for yourself.

Therefore if you want to develop the assimilating learning style plan time to 'think'.

You could use some of these tools to develop an assimilating learning style: log books, using video and audio recordings, structured discussions, structured de-briefing, self-assessment, reflection checklists and questionnaires, modelling reflection.

The Converger ('Decider')

Convergers rely heavily on hypothetical-deductive reasoning.

Characteristics

Convergers have characteristics opposite of divergers. Their greatest strengths lie in the practical application of ideas. A person with this learning style excels in situations with a single correct answer or solution to a question or problem. Convergers are very good in focusing on specific problems or situations. Research on this style of learning shows that convergers are relatively unemotional, and they prefer to deal with things rather than people, as does the assimilator. They often choose to specialize in the practical application of sciences for instance the economics, engineering and health care.

You will find convergers preferably in:

- Applied economics
- Applied physics
- Computing
- Engineering
- Forestry
- Law
- Medical research

Comfortable learning environments for convergers are

- When provided with practical applications of concepts and theories.
- When being able to independently draw practical conclusions.
- A clear path in the learning content.
- A relation between theory and practice.
- Given techniques and indications which help them to solve the problem for themselves.
- To be able to try out self-considered solutions.
- To be guided by expert counselors.

Comfortable activities for convergers are

- Look for a clear path in the learning content.
- Take the opportunity to experiment with your own solutions.
- Solve the problem on your own, but with indications and council.
- Ask for examples in practice.
- Find someone who can demonstrate new techniques.
- Find links between the learning content and the application.
- Focus on practical matters.

Therefore if you want to develop the converging learning style plan time to 'decide'.

You could use some of these tools to develop a converging learning style: case studies, designing experiments, observation checklists, devising criteria, assessing through substitute experiences.

The Accommodator ('Doer')

Accommodators carry out plans and experiments and adapt to immediate circumstances.

Characteristics

Accommodators are polar opposites of assimilators. Their greatest strengths lie in carrying out plans and experiments and involving themselves in new experiences. They are risk-takers and excel in those situations requiring quick decisions and adaptations. In situations where a theory or plan does not fit the "facts", they tend to discard the theory and try something else. They often solve problems in an intuitive trial and error manner, relying heavily on other people for information.

Accommodators are at ease with people but may be seen as impatient and "pushy". Their educational background is often in practical fields such as business or education. They prefer "action-oriented" jobs, such as nursing, teaching, marketing or sales.

You will find accommodators preferably in:

- Commerce
- Demography
- Education
- Environmental studies
- Geography
- Political Science
- Public policy

Comfortable learning conditions for accommodators are

- When allowed to gain 'hands on' experience.
- Humor, pleasure and entertainment on the learning or working place.
- Feedback on their own actions.
- Contact with others and with the environment.
- To be free to react quickly.
- To have several ways of working and learning to their disposal.
- Situations which are defying and tense and ask for choices.

Comfortable activities for accommodators are

- You need to do things together.
- You learn best in cooperating, so choose for tasks and projects.
- You need challenges, tension-full situations that ask for quick choices.
- Take on concrete experiences and give yourself time and space to just do things.
- Take on a challenging task and don't think too much about the consequences.
- Take a risk, make something happen, solve problems.
- Use your influence to have an effect on other people and on the way of working.

Therefore if you want to develop the accommodating learning style plan time to 'do'.

You could use some of these tools to develop an accommodating learning style: action plans, setting objectives, learning contracts, action research, games, simulations, role plays.