Kolb's Learning Styles

Introduction – The Experiential Learning Cycle

David Kolb published his learning styles model in 1984 from which he developed his learning style inventory.

Kolb's experiential learning theory works on two levels: a four-stage cycle of learning and four separate learning styles. Much of Kolb's theory is concerned with the learner's internal cognitive processes.

Kolb states that learning involves the acquisition of abstract concepts that can be applied flexibly in a range of situations. In Kolb's theory, the impetus for the development of new concepts is provided by new experiences.

"Learning is the process whereby knowledge is created through the transformation of experience" (Kolb, 1984, p. 38).

Kolb's experiential learning style theory is typically represented by a four-stage learning cycle in which the learner 'touches all the bases':

1. Concrete Experience - a new experience or situation is encountered, or a reinterpretation of existing experience.

2. Reflective Observation of the New Experience - of particular importance are any inconsistencies between experience and understanding.

3. Abstract Conceptualization reflection gives rise to a new idea, or a modification of an existing abstract concept (the person has learned from their experience).

4. Active Experimentation - the learner applies their idea(s) to the world around them to see what happens.

Effective learning is seen when a person progresses through a cycle of four stages: of (1) having a concrete experience followed by (2) observation of and reflection on that experience which leads to (3) the formation of abstract concepts (analysis) and generalizations (conclusions) which are then (4) used to test a hypothesis in future situations, resulting in new experiences.
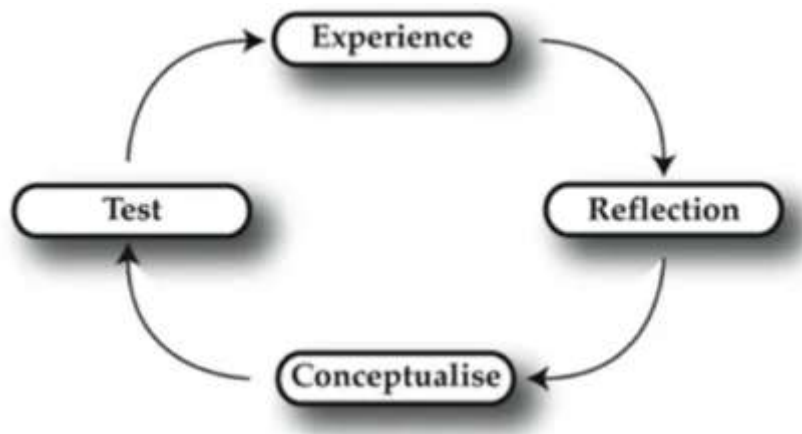
Kolb (1974) views learning as an integrated process with each stage being mutually supportive of and feeding into the next. It is possible to enter the cycle at any stage and follow it through its logical sequence.

However, effective learning only occurs when a learner can execute all four stages of the model. Therefore, no one stage of the cycle is effective as a learning procedure on its own.

Kolb's learning theory (1974) sets out four distinct learning styles, which are based on a four-stage learning cycle (see above). Kolb explains that different people naturally prefer a certain single different learning style.

Various factors influence a person's preferred style. For example, social environment, educational experiences, or the basic cognitive structure of the individual.

Whatever influences the choice of style, the learning style preference itself is actually the product of two pairs of variables, or two separate 'choices' that we make, which Kolb presented as lines of an axis, each with 'conflicting' modes at either end.

A typical presentation of Kolb's two continuums is that the east-west axis is called the **Processing Continuum** (how we approach a task), and the north-south axis is called the **Perception Continuum** (our emotional response, or how we think or feel about it). Kolb believed that we cannot perform both variables on a single axis at the same time (e.g., think and feel). Our learning style is a product of these two choice decisions.

It's often easier to see the construction of Kolb's learning styles in terms of a two-by-two matrix. Each learning style represents a combination of two preferred styles.

The matrix also highlights Kolb's terminology for the four learning styles; diverging, assimilating, and converging, accommodating.

Knowing a person's (and your own) learning style enables learning to be orientated according to the preferred method. That said, everyone responds to and needs the stimulus of all types of learning styles to one extent or another - it's a matter of using emphasis that fits best with the given situation and a person's learning style preferences.
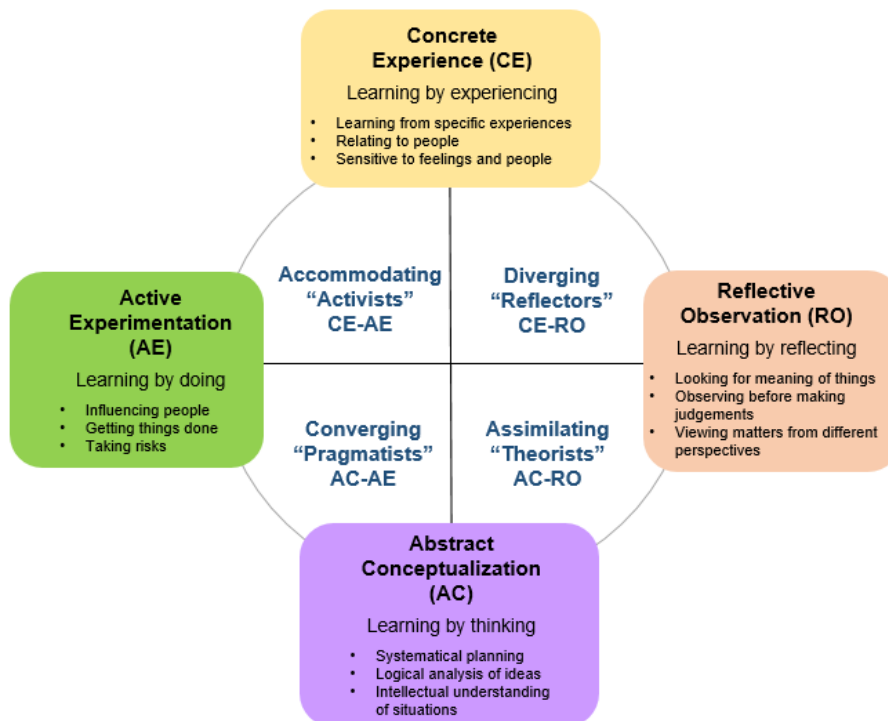
Brief descriptions of the four Kolb learning styles:

Diverging (feeling and watching - CE/RO)

These people are able to look at things from different perspectives. They are sensitive. They prefer to watch rather than do, tending to gather information and use imagination to solve problems. They are best at viewing concrete situations from several different viewpoints.

Kolb called this style 'diverging' because these people perform better in situations that require ideas-generation, for example, brainstorming. People with a diverging learning style have broad cultural interests and like to gather information.

They are interested in people, tend to be imaginative and emotional, and tend to be strong in the arts. People with the diverging style prefer to work in groups, to listen with an open mind and to receive personal feedback.

Divergers take experiences and think deeply about them. They diverge from a single experience to multiple possibilities. When they learn they will ask 'why', and will start from detail to logically work up to the big picture. They like working with others but like things to remain calm – they will be distressed by conflicts in the group. They like to receive constructive feedback.

Divergers are best described as being "Reflectors".

Assimilating (watching and thinking - AC/RO)

The assimilating learning preference involves a concise, logical approach. Ideas and concepts are more important than people.

These people require good clear explanation rather than a practical opportunity. They excel at understanding wide-ranging information and organizing it in a clear, logical format.

People with an assimilating learning style are less focused on people and more interested in ideas and abstract concepts. People with this style are more attracted to logically sound theories than approaches based on practical value.

This learning style is important for effectiveness in information and science careers. In formal learning situations, people with this style prefer readings, lectures, exploring analytical models, and having time to think things through.

Assimilators have the most cognitive approach, preferring to think than to act. When they learn they will ask 'What is there I can know?' and like organized and structured understanding. Lectures are their preference, with demonstrations where possible, and will respect the knowledge of experts. People with this style will have a strong control need. They learn best with lectures that start from high-level concepts and work down to the detail.

Assimilators are best described as being "Theorists".

Converging (doing and thinking - AC/AE)

People with a converging learning style can solve problems and will use their learning to find solutions to practical issues. They prefer technical tasks, and are less concerned with people and interpersonal aspects.

People with a converging learning style are best at finding practical uses for ideas and theories. They can solve problems and make decisions by finding solutions to questions and problems.

People with a converging learning style are more attracted to technical tasks and problems than social or interpersonal issues. A converging learning style enables specialist and technology abilities.

People with a converging style like to experiment with new ideas, to simulate, and to work with practical applications.

When convergers learn they will ask 'how', and will want to learn by understanding how things work in practice. They like facts and will seek to make things efficient by making small and careful changes. They prefer to work alone or independently.

Convergers are best described as being "Pragmatists".

Accommodating (doing and feeling - CE/AE)

The Accommodating learning style is 'hands-on,' and relies on intuition rather than logic. These people use other people's analysis, and prefer to take a practical, experiential approach. They are attracted to new challenges and experiences, and to carrying out plans.

They commonly act on 'gut' instinct rather than logical analysis. People with an accommodating learning style will tend to rely on others for information than carry out their own analysis. This learning style is prevalent within the general population.

Accommodators have the most hands-on approach, with a strong preference for doing rather than thinking. When they lean they will ask 'what if?' and 'why not?' to support their action-first approach. They do not like routine and will take creative risks to see what happens. They learn better by themselves than with others.

Accommodators are best described as being "Activists".

The Questionnaire – Determining your preferred learning style

This questionnaire is designed to find out your preferred learning styles(s) as an adult. Over the years, you have probably developed learning habits that help you benefit more from some experiences than from others. You may be unaware of this, and this questionnaire will help you pinpoint your learning preferences.

This questionnaire will probably take you about 10 minutes to complete. The accuracy of your results depends on how honest you are. There are no right or wrong answers.

If you agree more than you disagree with a statement, place a tick (x) in the box to the left of the question.

If you disagree more than you agree, leave the box blank. If you find yourself wondering which situation to think of when answering a question, just think about how you are when you are working with people. Go with your first gut reaction instead of over-thinking your response.

QUESTIONS

□ 1. I have strong beliefs about what is right and wrong, good and bad.
□ 2. I often act without considering the possible consequences.
□ 3. I tend to solve problems using a step-by-step approach.
□ 4. I believe that formal procedures and policies restrict people.
□ 5. I have a reputation for saying what I think, simply and directly.
□ 6. I often find that actions based on feelings are as sound as those based on careful thought and analysis.
□ 7. I like the sort of work where I have time for thorough preparation and implementation.
□ 8. I regularly question people about their basic assumptions.
□ 9. What matters most is whether something works in practice.
□ 10. I actively seek out new experiences.

□ 11. When I hear about a new idea or approach, I immediately start working out how to apply it in practice.
□ 12. I am keen on self-discipline such as watching my diet, taking regular exercise, sticking to a fixed routine, etc.
□ 13. I take pride in doing a thorough job.
□ 14. I get on best with logical, analytical people and less well with spontaneous, 'irrational' people.
□ 15. I take care over how I interpret data and avoid jumping to conclusions.
□ 16. I like to reach a decision carefully after weighing up many alternatives.
□ 17. I am attracted more to novel, unusual ideas than to practical ones.
□ 18. I don't like disorganized things and prefer to fit things into a coherent pattern.
□ 19. I accept and stick to laid down procedures and policies so long as I regard them as an efficient way of getting the job done.
□ 20. I like to relate my actions to a general principle, standard or belief.

□ 21. In discussions, I like to get straight to the point.
□ 22. I tend to have distant, rather formal relationships with people at work.
□ 23. I thrive on the challenge of tackling something new and different.
□ 24. I enjoy fun-loving spontaneous people.
□ 25. I pay careful attention to detail before coming to a conclusion.
□ 26. I find it difficult to produce ideas on impulse.
□ 27. I believe in coming to the point immediately.
□ 28. I am careful not to jump to conclusions too quickly.
□ 29. I prefer to have as many sources of information as possible – the more information to think over the better.
□ 30. Flippant, superficial people who don't take things seriously enough usually irritate me.

□ 31. I listen to other people's points of view before putting my own view forward.
□ 32. I tend to be open about how I'm feeling.
□ 33. In discussions, I enjoy watching the plotting and scheming of the other participants.
□ 34. I prefer to respond to events in a spontaneous, flexible way rather than plan things out in advance.
□ 35. I tend to be attracted to techniques such as flow charts, contingency plans etc.
□ 36. It worries me if I have to rush work to meet a tight deadline.
□ 37. I tend to judge people's ideas on their practical merits.
□ 38. Quiet, thoughtful people tend to make me feel uneasy.
□ 39. I often get irritated by people who want to rush things.
□ 40. It is more important to enjoy the present moment than to think about the past or future.

□ 41. I think that decisions based on a careful analysis of all the information are better than those based on intuition.
□ 42. I tend to be a perfectionist.
□ 43. In discussions, I usually produce lots of spontaneous ideas.
□ 44. In meetings, I put forward practical, realistic ideas.
□ 45. More often than not, rules are there to be broken.
□ 46. I prefer to stand back from a situation and consider all the perspectives.
□ 47. I can often see inconsistencies and weaknesses in other people's arguments.
□ 48. On balance I talk more than I listen.
□ 49. I can often see better, more practical ways to get things done.
□ 50. I think written reports should be short and to the point.

□ 51. I believe that rational, logical thinking should win the day.
□ 52 I tend to discuss specific things with people rather than engaging in social discussion.
□ 53. I like people who approach things realistically rather than theoretically.
□ 54. In discussions, I get impatient with irrelevant issues and digressions.
□ 55. If I have a report to write, I tend to produce lots of drafts before settling on the final version.
□ 56. I am keen to try things out to see if they work in practice.
□ 57. I am keen to reach answers via a logical approach.
□ 58. I enjoy being the one that talks a lot.
□ 59. In discussions, I often find I am a realist, keeping people to the point and avoiding wild speculations.
□ 60. I like to ponder many alternatives before making up my mind.

□ 61. In discussions with people I often find I am the most dispassionate and objective.
□ 62. In discussions I'm more likely to adopt a 'low profile' than to take the lead and do most of the talking.
□ 63. I like to be able to relate current actions to the longer-term bigger picture.
□ 64. When things go wrong, I am happy to shrug it off and 'put it down to experience'.
□ 65. I tend to reject wild, spontaneous ideas as being impractical.
□ 66. It's best to think carefully before taking action.
□ 67. On balance, I do the listening rather than the talking.
□ 68. I tend to be tough on people who find it difficult to adopt a logical approach.
□ 69. Most times I believe the end justifies the means.
□ 70. I don't mind hurting people's feelings so long as the job gets done.

□ 71. I find the formality of having specific objectives and plans stifling.
□ 72. I'm usually one of the people who puts life into a party.
□ 73. I do whatever is practical to get the job done.
□ 74. I quickly get bored with methodical, detailed work.
□ 75. I am keen on exploring the basic assumptions, principles and theories underpinning things and events.
□ 76. I'm always interested to find out what people think.
□ 77. I like meetings to be run on methodical lines, sticking to laid down agenda.
□ 78. I steer clear of subjective (biased) or ambiguous (unclear) topics.
□ 79. I enjoy the drama and excitement of a crisis situation.
□ 80. People often find me insensitive to their feelings.

Scoring

You score one point for each item you **ticked**. There are no points for items you crossed. Go back over your responses and simply circle the question number in the table below for each question you **ticked**. Then add up the number of circled responses in the Totals row.

	Question Number			
	2	7	1	5
	4	13	3	9
	6	15	8	11
	10	16	12	19
	17	25	14	21
	23	28	18	27
	24	29	20	35
	32	31	22	37
	34	33	26	44
	38	36	30	49
	40	39	42	50
	43	41	47	53
	45	46	51	54
	48	52	57	56
	58	55	61	59
	64	60	63	65
	71	62	68	69
	72	66	75	70
	74	67	77	73
	79	76	78	80
Total:				
	Accommodating (Activist)	**Diverging (Reflector)**	**Assimilating (Theorist)**	**Converging (Pragmatist)**

Your preferred learning styles

Now circle your **total** scores for each learning style on the table below to determine the strength of your preference.

Accommodating	Diverging	Assimilating	Converging	
20 19 18 17 16 15 14 13	20 19 18	20 19 18 17 16	20 19 18 17	Very strong preference
12 11	17 16 15	15 14	16 15	Strong preference
10 9 8 7	14 13 12	13 12 11	14 13 12	Moderate preference
6 5 4	11 10 9	10 9 8	11 10 9	Low preference
3 2 1 0	8 7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	8 7 6 5 4 3 2 1 0	Very low preference

I have very strong preference for   _____
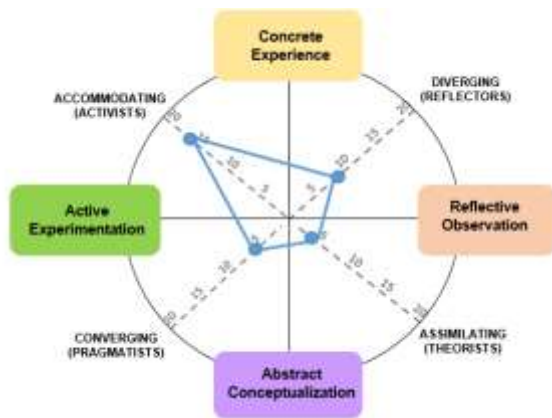
I have a strong preference for   _____
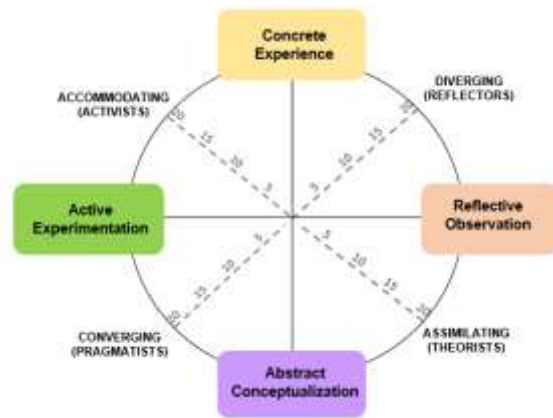
I have a moderate preference for   _____

I have a low preference for   _____

I have a very low preference for   _____

In order to visualize your preferred learning style(s), plot above score (0-20) for each learning style in below chart. Refer to the example on the left side.

Example   *Your Learning Style*

ACCOMMODATORS (or ACTIVISTS) want practical tasks and very little theory. They learn best from activities where:

- New experiences are emphasized
- The focus is on the present and on doing such activities as games, problem solving, simulations
- There is a lot of action and excitement
- They can lead and be in the limelight
- Ideas are generated without any concern about practical constraints
- They have to respond to a challenge and take risks
- The central focus is on team problem-solving.

ASSIMILATORS (or THEORISTS) want handouts, something to take away and study. They learn best from activities where:

- The learning forms a part of a conceptual whole, such as a model for a theory
- There is time to explore the interrelationship amongst elements
- They can explore the theory and methodology underlying the subject under investigation
- They are intellectually stretched
- There is a clear and obvious purpose to the activities
- There is a reliance on rationality and logic
- They can analyze situations and then generalize their findings
- They are asked to understand complex situations.

DIVERGERS (or REFLECTORS) want lots of breaks to go off and read and discuss. They learn best from activities where:

- There are opportunities to observe and consider
- There is a strong element of passive involvement such as listening to a speaker or watching a video
- There is time to think before having to act or contribute
- There is opportunity for research and problems can be probed in some depth
- They can review what was happening

- They are asked to produce reports that carefully analyze a situation or issue
- There is interaction with others without any risks of strong feelings coming to the fore
- They can finalize a view without being put under pressure.

CONVERGERS (or PRAGMATISTS) want shortcuts and tips. They learn best from activities where:

- There is a clear link back to some job-related problem
- Material is directed towards techniques that make their work easier
- They are able to practice what they have learned
- They can relate to a successful role model
- There are many opportunities to implement what has been learned
- The relevance is obvious and the learning is easily transferred to their jobs
- What is done is practical such as drawing up action plans or trialing techniques or procedures.
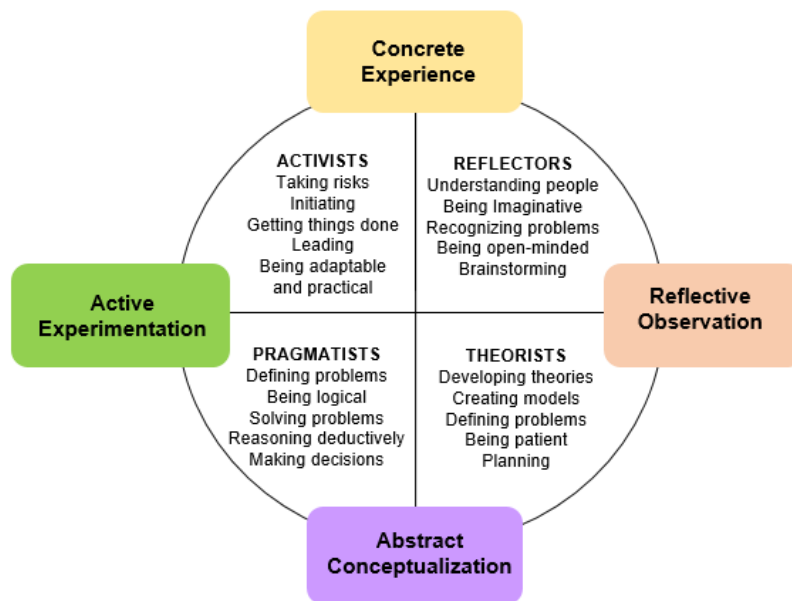
Kolb Learning Styles – Best Fit Self Assessment

Your Kolb Learning Style describes the unique way you spiral through Kolb's Experiential Learning Cycle. There is no right or wrong way on how a learner spirals through the experiential learning cycle and each person has their own preferred path. How a learner enters the cycle of learning depends on his/her individual preferences to learning. Research has shown learning styles are influenced by a person's culture, personality type, educational specialization, career choice, and current job role/tasks (Kolb & Kolb, 2005).

Through Kolb's research, he discovered four patterns of learning as they relate to the Experiential Learning Cycle:

- Accommodating Style (Activists), which falls between AE & CE (feeling & doing)
- Diverging Style (Reflectors), which falls between CE & RO (feeling & watching)
- Assimilating Style (Theorists), which falls between AC & RO (thinking & watching)
- Converging Style (Pragmatists), which falls between AC & AE (thinking & doing)

Remember that learning is a continuous process grounded in experience and you move through the cycle integrating action, observation, concepts, judgment (Dewey, 1938). Also, your learning style is not a fixed psychological trait but a consistent pattern of transactions between the individual and his/her environment.

Self-Assessment

Your preferred Kolb Learning Style has been determined based on the questionnaire. As a simplified alternative to the questionnaire you may review the descriptions above and below and RANK the learning styles according to which fits you best (1) and which fits you least (4) so all four Learning Styles have a ranking between 1 and 4.

_____Accommodating Style (Activists), which falls between AE & CE (feeling & doing)

_____Diverging Style (Reflectors), which falls between CE & RO (feeling & watching)

_____Assimilating Style (Theorists), which falls between AC & RO (thinking & watching)

_____Converging Style (Pragmatists), which falls between AC & AE (thinking & doing)

Describe why you ranked the four Learning Styles preferences as you did:

<u>**Accommodating Style – Activists**</u>

Learners with this style like to work in teams and their approach to learning is more trail and error. When learning, they ask themselves "What if" type questions.

- They like Concrete Experience (feeling) and Active Experimentation (doing) as dominant learning abilities
- People with this learning style have the ability to learn primarily from hands-on experience
- They enjoy carrying out plans and involving themselves in new and challenging experiences
- They have a tendency to act on gut feelings rather than logical analysis – rely more heavily on people for information than on their own technical analysis
- Learners with this style gravitate to action oriented careers such as marketing or sales, business, social work, educational psychology, law, educational administration, architecture, psychology, education, medicine
- As a formal learning style, these learners prefer to work with others to get assignments done, set goals, do field work, and test out different approaches to completing a project

Diverging Style – Reflectors

Learners with this style like to work in teams as well, but their approach to learning is about observing others and everything around them. When learning, they ask themselves "Why" type questions.

- They like Concrete Experience (feeling) and Reflective Observation (watching) as dominant learning abilities
- People with this learning style are best at viewing concrete situation from many different points of view
- Labeled "diverging" because a person with it performs better in situations that call for generation of ideas, such as a brainstorming session
- People with this style have broad cultural interests and like to gather information
- Are interested in people and tent to be imaginative and emotional
- Learners with style gravitate to - dramatic arts, language, music, art, journalism, library science, philosophy, sociology, home economics, political science, anthropology, physical education careers
- As a formal learning style, these learners prefer to work in groups, listen with an open mind, and receive personalized feedback

Assimilating Style – Theorists

Learners with this style like to work independently (solo). They like to work on abstract concepts and prefer a logical approach. They like to plan and do research and like inductive reasoning. When learning, they ask themselves "What is there to know" type questions.

- They like Abstract Conceptualization (thinking) and Reflective Observation (watching) as dominant learning abilities
- People with this learning style are best at understanding a wide range of information and putting it into concise, logical form
- People with this style are less focused on people and more interested in ideas and abstract concepts
- They find it more important that a theory have logical soundness than practical value
- Learners with this style gravitate to - science, geography, physiology, botany, agriculture/forestry, biochemistry, chemistry, mathematics, physics, economics careers
- As a formal learning style, these learners prefer readings, lectures, exploring analytical models, and having time to think things through
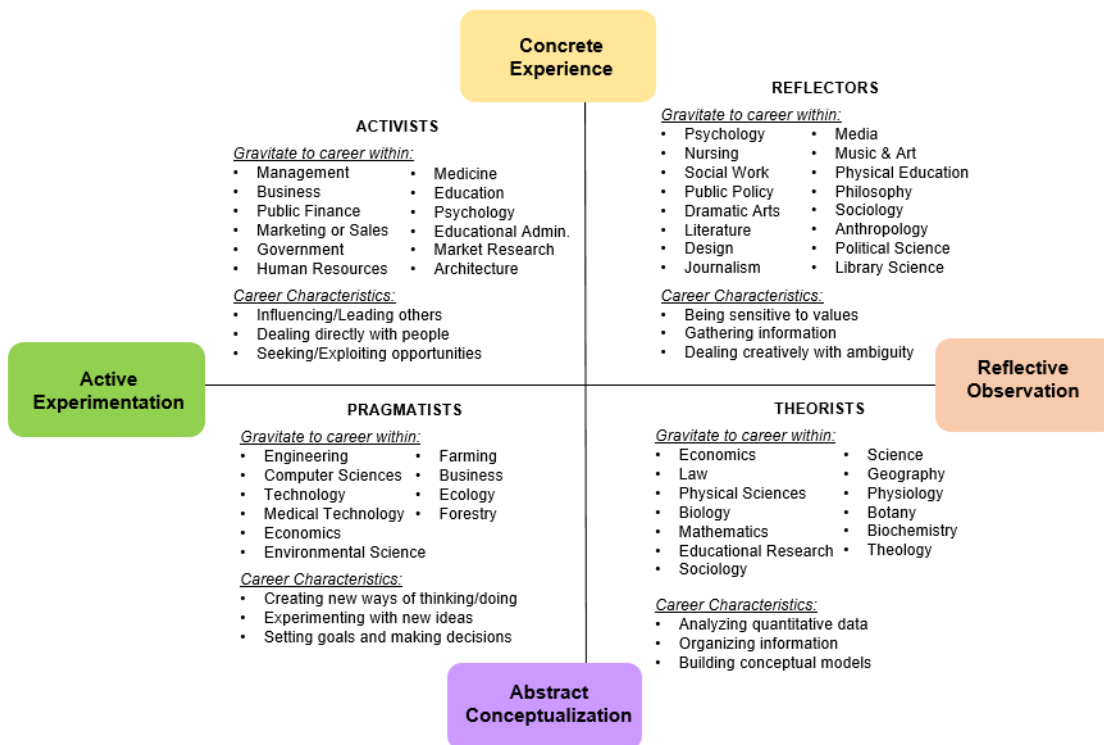
Converging Style – Pragmatists

Learners with this style like to work independently (solo). They like to work on problems, for example technical tasks and theories and they like deductive reasoning. When learning, they ask themselves "How" type questions.

- They like Abstract Conceptualization (thinking) and Active Experimentation (doing) as dominant learning abilities
- People with this learning style are best at finding practical uses for ideas and theories
- People with this style have the ability to solve problems and make decisions based on finding solutions to questions or problems
- They prefer to deal with technical tasks and problems rather than with social and interpersonal issues
- Learners with this style gravitate to technology, business, ecology, engineering careers
- As a formal learning style, these learners prefer to experiment with new ideas, simulations, laboratory assignments, and practical applications

Learning style is not a fixed psychological trait but a consistent pattern of transactions between the individual and his/her environment. You likely leverage all learning styles to different degrees based on the situation.

Certain learning styles tend to gravitate toward certain career types. However, people follow many different patterns. In below chart there are several possible career areas listed for each learning style. You can explore new career opportunities which may suit you or enrich your present career direction. Remember, in any career field there are jobs that include a spectrum of learning styles.

Concrete Experience

Active Experimentation

Reflective Observation

Abstract Conceptualization

ACTIVISTS

Gravitate to career within:
- Management
- Business
- Public Finance
- Marketing or Sales
- Government
- Human Resources
- Medicine
- Education
- Psychology
- Educational Admin.
- Market Research
- Architecture

Career Characteristics:
- Influencing/Leading others
- Dealing directly with people
- Seeking/Exploiting opportunities

REFLECTORS

Gravitate to career within:
- Psychology
- Nursing
- Social Work
- Public Policy
- Dramatic Arts
- Literature
- Design
- Journalism
- Media
- Music & Art
- Physical Education
- Philosophy
- Sociology
- Anthropology
- Political Science
- Library Science

Career Characteristics:
- Being sensitive to values
- Gathering information
- Dealing creatively with ambiguity

PRAGMATISTS

Gravitate to career within:
- Engineering
- Computer Sciences
- Technology
- Medical Technology
- Economics
- Environmental Science
- Farming
- Business
- Ecology
- Forestry

Career Characteristics:
- Creating new ways of thinking/doing
- Experimenting with new ideas
- Setting goals and making decisions

THEORISTS

Gravitate to career within:
- Economics
- Law
- Physical Sciences
- Biology
- Mathematics
- Educational Research
- Sociology
- Science
- Geography
- Physiology
- Botany
- Biochemistry
- Theology

Career Characteristics:
- Analyzing quantitative data
- Organizing information
- Building conceptual models

What's next?

Try out your new insights in yourself and people around you. Let some close friends and family members also do the questionnaire and discover your different learning styles. Are there any significant differences between yourself and people close to you? Do you have different needs of communication? Do you solve conflicts in different ways? Does one of you rather work solo and deal with issues on their own, while another prefer to solve problems in teams.

Concerning yourself, do you want to change anything in your current situation and reach a wished position? Write down your goal and what strategy and actions in order to get there. It could look like this:

Goal	Action Plan	How to measure success