Kolb Learning Style Inventory On-line (Version 3.1): Interpretive Report

The Cycle of Learning

The Cycle of Learning graph on your summary report indicates how much you rely on each of the four different learning modes: Concrete Experience, Reflective Observation, Abstract Conceptualization, and Active Experimentation. These learning modes make up a four-phase cycle of learning. Different learners start at different places in this cycle. Effective learning eventually involves all four phases. You can see by the placement of your kite which of the four learning phases you tend to prefer in a learning situation. The closer the points of your kite are to the 100% ring on the circle, the more you tend to use that way of learning.

The percentile labels on the concentric circles represent the norms on the four basic scales (CE, RO, AC, AE) for 6977 men and women ranging in age from 17-75. This sample group includes college students and working adults in a wide variety of fields. It is made up primarily of US residents (80%) with the remaining 20% of users residing in 64 different countries with the largest representations from Canada, UK, India, Germany, Brazil, Singapore, France, and Japan. A wide range of occupations and educational backgrounds is represented. For complete information about the normative comparison group and other validity research consult the LSI Technical Specifications available at: www.learningfromexperience.com

On the vertical line in the graph (refer to summary report), find your score for Concrete Experience. For example, if your point is at the 60% ring, that means you scored higher on CE than 60% of the people in this sample group. You can compare your scores for each of the other learning modes with the sample group.

Interpreting Your Learning Style:

Understanding Your Movement through the Cycle
Concrete Experience (CE)
Learning by experiencing
- Learning from specific experiences
- Relating to people
- Being sensitive to feelings and people

Active Experimentation (AE)
Learning by doing
- Showing ability to get things done
- Taking risks
- Influencing people and events through action

Abstract Conceptualization (AC)
Learning by thinking
- Logically analyzing ideas
- Planning systematically
- Acting on an intellectual understanding of the situation

Reflective Observation (RO)
Learning by reflecting
- Carefully observing before making judgments
- Viewing issues from different perspectives
- Looking for the meaning of things

The model above describes the four phases of the learning cycle. There are two ways you can take in experience - by Concrete Experience or Abstract Conceptualization. There are also two ways you deal with experience - by Reflective Observation or Active Experimentation. When you use both the concrete and abstract modes to take in your experience, and when you both reflect and act on that experience, you expand your potential to completely engage in a learning process.

You may begin a learning process in any of the four phases of the learning cycle. Ideally, using a well-rounded learning process, you would cycle through all four phases. However,
you may find that you sometimes skip a phase in the cycle or focus primarily on just one. Think about the phases you tend to skip and those you tend to concentrate on.

Identifying Your Preferred Learning Style Type

On the Cycle of Learning graph, you can see that your scores form the general shape of a kite. Because each person's learning style is unique, depending on several dimensions of learning preferences, everyone's kite shape will be a little different. The learning preferences indicated by the shape of your kite tell you about your own particular learning style and how much you rely on that style.

For example if you tend to have both Concrete Experience and Reflective Observation learning preferences, you will tend to have a Diverging style. Your preference may be to consider a situation from differing perspectives. You tend to diverge from conventional solutions, coming up with alternative possibilities. The more your shape falls into the upper right-hand quadrant of the circle, the more invested you are in using the Diverging style in learning situations. If you have this style, your kite shape might look similar to one of these:

![Kite Diagram](image1)

If you tend to use approaches that include Reflective Observation and Abstract Conceptualization, you prefer the Assimilating style. You are interested in absorbing the learning experience into a larger framework of ideas. You tend to assimilate information into theories or models. The more your shape falls into the lower right quadrant, the more likely you are to use the Assimilating style in learning situations. Your kite shape should look similar to one of these:

![Kite Diagram](image2)

If you tend to approach the learning process by focusing on Abstract Conceptualization and Active Experimentation, you probably prefer the Converging style. You may enjoy gathering information to solve problems. You tend to converge on the correct solution. The more you rely on this style, the larger the shape in the lower left quadrant will be, and your kite shape will resemble one of these:

![Kite Diagram](image3)
If your primary learning modes involve **Active Experimentation** and **Concrete Experience**, you may find yourself using the **Accommodating** style. If you prefer **Accommodating**, you may want to put ideas that you have practiced into action, finding still more uses for whatever has been learned. You tend to accommodate, or adapt to, changing circumstances and information. The larger the shape in the upper left quadrant, the more you rely on this style, and your kite shape will be similar to one of these:

![Diagram of kite shapes]

Understanding your learning style type, and the strengths and weaknesses inherent in that type, is a major step toward increasing your learning power and getting the most from your learning experiences.

**Learning Style Types**

While your kite shape explains your relative preferences for the four phases of the learning cycle, your combined scores will explain which of the four dominant learning styles best describes you. Refer to the grid on your summary report.

The closer your data point is to the center of the grid, the more balanced your learning style. If the data point falls near any of the far corners of the grid, you tend to rely heavily on a particular learning style. If your data point falls near a corner of the grid in the un-shaded area, you tend to rely heavily on that particular learning style. If your data point falls in a shaded area then your style is characterized by a combination of the two adjoining learning style types. For example, if your data point falls in the shaded area between the Accommodating and Diverging quadrants your learning style is characterized by a strong orientation to Concrete Experience (CE) balanced by an equal emphasis on Active Experimentation (AE) and Reflective Observation (RO), and with little emphasis on Abstract Conceptualization (AC). If your data point falls in the middle shaded box, you balance CE & AC and AE & RO.

The characteristics of the basic learning style types are described below. The names of the learning style types are adopted from several established theories of thinking and creativity. **Assimilating** and **Accommodating** originate in Jean Piaget's definition of intelligence as the balance between the process of adapting concepts to fit the external world (Accommodating) and the process of fitting observations of the world into existing concepts (Assimilating). **Converging** and **Diverging** are the two essential creative
processes identified in J. P. Guilford’s structure-of-intellect model and other theories of creativity.

**Diverging**  
*Combines learning steps of Concrete Experience and Reflective Observation*

You are best at viewing concrete situations from many different points of view. Your approach to situations is to observe rather than take action. You may enjoy situations that call for generating a wide range of ideas, such as brainstorming sessions. You probably have broad cultural interests and like to gather information. This imaginative ability and sensitivity to feelings is needed for effectiveness in arts, entertainment, and service careers. In formal learning situations, you may prefer working in groups to gather information, listening with an open mind, and receiving personalized feedback.

**Assimilating**  
*Combines learning steps of Reflective Observation and Abstract Conceptualization*

You are best at taking in a wide range of information and putting it into concise, logical form. You probably are less focused on people and more interested in abstract ideas and concepts. Generally, people with this learning style find it more important that a theory has logical soundness than practical value. This learning style is important for effectiveness in information and science careers. In formal learning situations, you may prefer lectures, readings, exploring analytical models, and having time to think things through.
**Converging**

*Combines learning steps of Abstract Conceptualization and Active Experimentation*

You are best at finding practical uses for ideas and theories. You have the ability to solve problems and make decisions based on finding solutions to questions or problems. You would rather deal with technical tasks and problems than with social and interpersonal issues. These learning skills are important for effectiveness in specialist and technology careers. In formal learning situations, you may prefer to experiment with new ideas, simulations, laboratory assignments, and practical applications.

**Accommodating**

*Combines learning steps of Active Experimentation and Concrete Experience*

You have the ability to learn primarily from "hands-on" experience. You probably enjoy carrying out plans and involving yourself in new and challenging experiences. Your tendency may be to act on "gut" feelings rather than on logical analysis. In solving problems, you may rely more heavily on people for information than on your own technical analysis. This learning style is important for effectiveness in action-oriented careers such as marketing or sales. In formal learning situations, you may prefer to work with others to get assignments done, to set goals, to do field work, and to test out different approaches to completing a project.
Basic Strengths of Each Learning Style

The chart below identifies the strengths of each learning style.

Strengthening and Developing Learning Style Skills

In addition to understanding the strengths of your learning style, you might also find it helpful to consider a few ways of strengthening the other 3 learning styles that are different from your own. If you rely too heavily on one learning area, you run the risk of missing important ideas and experiences. Remember, all learning happens within some context. For example, at work you may be a wonderful decision maker, but you may see a need to strengthen your "people skills." At home, you might be the one who always gets things done, yet sometimes your actions could use more planning, or perhaps you need more imagination in your day-to-day work.

Below are a few tips for strengthening the 4 Learning Styles:
If you want to improve your Diverging learning skills, try

- Being sensitive to people's feelings
- Being sensitive to values
- Listening with an open mind
- Gathering information
- Imagining the implications of ambiguous situations

If you want to improve your Assimilating learning skills, try

- Organizing information
- Testing theories and ideas
- Building conceptual models
- Designing experiments
- Analyzing quantitative data

If you want to improve your Converging learning skills, try

- Creating new ways of thinking and doing
- Experimenting with new ideas
- Choosing the best solution
- Setting goals
- Making decisions

If you want to improve your Accommodating learning skills, try

- Committing yourself to objectives
- Seeking new opportunities
- Influencing and leading others
- Becoming personally involved
- Dealing with people

Strategies for Developing Learning Style Skills

1. **Develop learning and work relationships with people whose learning strengths lie in areas that are different from your own.**

   This is the easiest way to improve your learning skills. While you can begin by recognizing and building on your own strengths, it is essential to value different learning styles as well. Learning power is increased and problems are solved more effectively by working with others. Remember, initially you may be drawn to people who have similar learning skills, but you will experience the learning cycle more fully with those who have learning styles that are different from your own.

2. **Improve the fit between your learning style strengths and the kinds of learning experiences you face.**

   Though a bit more difficult, this strategy can help you to achieve better learning performance and life satisfaction. Try reorganizing activities in your learning situations. Concentrate on those tasks that lie in your areas of learning strength, and rely on other people where you have weaknesses. For example, if your preferred learning style is
Diverging, spend your time thinking of all the options and gathering information, and rely on someone with the Converging style to choose the best solution.

3. **Practice and develop learning skills in areas that are the opposite of your present strengths.**

This strategy is the most challenging, but it can also be the most rewarding. Try to become a more flexible learner by consciously using the learning skills associated with the learning style opposite to your own. For example, if you have an Assimilating style, focus on using skills associated with the Accommodating style (taking risks, getting things done, being adaptable). This approach may seem awkward to you at first, but in the long run your increased flexibility will allow you to cope with challenges of all kinds.

Remember—
- Develop a long-term plan: Look for improvements and payoffs over months and years, rather than straight away.
- Look for safe ways to practice new skills: Find situations that test them but will not punish you if you fail.
- Reward yourself: Becoming a flexible learner is hard work.

### Applying What You Know About Your Learning Style

#### Solving Problems

Understanding your learning style can make you an effective problem solver. Nearly every problem that you encounter on the job or in your life involves the following processes:
- Identifying the problem
- Selecting the problem to solve
- Seeing different solutions
- Evaluating possible results
- Implementing the solution

These processes mirror those in the learning cycle. Each process, or each piece of the problem, needs to be approached in different ways. Use the diagram below to identify your potential strengths as a problem solver.
Take some time to think about situations where your strengths as a problem solver have emerged in the past, and then identify areas you want to develop further in the future. Notice the area that is the opposite of your area of strength. Are there ways that you can develop your problem-solving skills in this area?

**Working in Teams**

Teams are an increasingly popular vehicle for getting things done in the classroom and in the workplace. You have probably belonged to a number of teams and can easily identify those that were effective and those that were ineffective. While a number of factors contribute to team effectiveness, learning styles, specifically a team’s learning style profile, is a prominent factor.

Consider a team that creates an advertising campaign for a new product. Nearly all the team members prefer the Accommodating style. Consequently, they share a preference for action and rarely disagree. They quickly create and place an advertisement in an industry magazine. However, since the team lacks the more reflective Diverging and Assimilating styles, research and analysis that would have provided support for a targeted, direct mail campaign, for instance, is never considered.

Knowledge of learning styles can help you, as a team member, to assume a leadership role and guide the group through all the phases of the learning cycle. If you are a manager responsible for creating teams, this knowledge helps you ensure that all styles
are represented and, therefore, all angles considered. In either role, you contribute to a more successful outcome.

Try teaming up with one or two of your colleagues or classmates. Choose an actual work- or school-related problem for the team to solve. During the process, note which team member is contributing ideas, who focuses on feelings and values, who tries to identify the problem, and who focuses on solutions. Are you missing any of the strengths associated with the learning cycle? If so, which ones? Who might develop these strengths? How might they best be developed to serve the team? How can you adapt your group process to ensure that all phases of the learning cycle are included?

Better yet, try the *Kolb Team Learning Experience* and improve team effectiveness. You and your team can experience the cycle of learning through the Team modules of Purpose, Membership, Roles, Context, Process, and Action. The modular design enables you to experience all modules, or just those that have special meaning for your team.

**Resolving Conflict**

Conflict can be useful. The conflict that arises from differing perspectives holds creative ideas and the potential for looking at old issues in new ways. Conflict can, however, become negative and burdensome when disagreements are written off as "personality conflict" or "I just can't get along with that person."

Consider the employee who publicly chastises a co-worker for constantly holding up the department's progress by analyzing every detail of the job at hand. The co-worker retaliates, saying that her accuser acts rashly, thereby jeopardizing the department's project. The two refuse to work together. Ultimately, the conflict extends beyond the two co-workers to affect the entire department.

An appreciation for different learning styles can alleviate this situation. Both employees may be right, but their learning preferences lie at the opposite extremes of the active–reflective continuum. They need to realize that the combination of their two styles is more effective than either style alone.

When you find yourself in a situation where there is a difference in perspectives, remember what you have learned about the four different learning styles. Use this information to elicit ideas, experiences, and reflections from the other people involved.

**Communicating at Work**

Effective communication must overcome all kinds of potential static. At work, this holds true for communication with your boss, co-workers, clients, and vendors. Consider the Assimilating employee who is constantly frustrated by encounters with his Accommodating manager. As far as he can see, she pays little attention to the detailed facts and figures he carefully prepares for each of their meetings. She, on the other hand, is completely frustrated by the amount of detail and extraneous information he provides.

In this situation, the employee would be better off presenting information to the manager in a bulleted, highlighted, this-is-what-I-suggest manner. In doing so, he would appeal to
her learning preferences and get through to her in a way he never thought possible. On the flip side, the manager would benefit from an appreciation of different learning styles. She should acknowledge the work that the employee has put into preparing for the meeting and assure him that, although she is quite busy at the moment, she will make a point of looking through the information as soon as she has time.

Think of a situation where you could improve communication with another person at work. Perhaps the two of you have learning style differences. Do you prefer thinking things through while the other person prefers thinking on their feet? How can you combine your styles for a more effective outcome? How can you work together to develop each other’s weaker styles?

**Communicating at Home**

Work isn’t the only place where communication can be a challenge. Different learning styles between family members can benefit, or hinder, the relationship. An awareness of your own and other family members’ learning styles will help you appreciate the styles’ strengths and understand their weaknesses.

Consider a couple assembling a bike. She has an Assimilating style and prefers to read the instructions, account for all the parts, and lay out the tools before she begins. He has an Accommodating style; he scatters all the parts around the room, immediately begins assembling the handlebars, and has no idea where the instructions are.

To successfully assemble the bike, they need to combine their reflective and active styles. When both are represented, the couple can efficiently assemble a bike that is safe to ride. Think about your own home situation. Is a family project (wallpapering, painting, cleaning out the garage, etc.) coming up? Can you find a way to combine your styles so that you can carry out the project more effectively? Can you help develop each other’s weaker styles?

**Considering a Career**

In general, certain learning styles tend to gravitate toward certain career types. However, people follow many different patterns. Even within a particular career, there may be sub-patterns of learning styles and interests to consider. For example, a person with an Accommodating style who is practicing medicine may prefer the personal interactions and the active problem-solving that a family practice entails, while someone with an Assimilating style may enjoy the medical science field, where thorough research on medical problems yields the solutions that a practitioner may one day use. You can use the following chart not only to explore new career opportunities but to enrich your present career path. Remember, in any career field there are jobs that include a spectrum of learning styles.

The biggest mistake most people make when comparing their career with their learning style is to think that there is a formula that says, "My learning style is X so my career should be Y." A better way to use the Learning Style Inventory when considering career’s,
is to think about what aspects of certain jobs might be most conducive to your learning style. You may also be interested in finding ways that your career can challenge you to stretch your learning strengths and help you to develop new ones.

Consider your present career path. Are there ways that you find yourself able to use your learning strengths in your present job? Does your job present you with challenges that include you "stretching" to develop other learning strengths? Do you have future career goals in mind? How do you picture yourself accomplishing those goals given your learning strengths? What learning areas would you like to develop as you work on reaching your goals?
Learning Styles and General Career Patterns

- **Concrete Experience**
  - Accommodating:
    - Some Career Paths: Management, Education, Nursing
    - Career Characteristics: Dealing Directly with People
  - Diverging:
    - Some Career Paths: Psychology, Social Work
    - Career Characteristics: Gathering Information

- **Reflective Observation**
  - Assimilating:
    - Some Career Paths: Physical Sciences, Biology
    - Career Characteristics: Organizing Information
  - Converging:
    - Some Career Paths: Computer Sciences, Engineering
    - Career Characteristics: Experimenting with New Ideas

- **Abstract Conceptualization**
  - Active Experimentation:
    - Some Career Paths: Accounting, Forestry
    - Career Characteristics: Setting Goals and Making Decisions
  - Reflective Observation:
    - Some Career Paths: Computer Sciences, Engineering
    - Career Characteristics: Experimenting with New Ideas

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Resources for Further Study


Experiential Learning: Experience as the Source of Learning and Development
By David A. Kolb. © 1984 Prentice Hall PTR.
The theory of experiential learning, with applications for education, work, and personal development. Contains information on the validity of the Kolb Learning Style Inventory.

Facilitator's Guide To Learning
© 2000 Experience Based Learning Systems, Inc.
A manual for teachers and trainers.

The Kolb Adaptive Style Inventory
© 1993 Experience Based Learning Systems, Inc.
An inventory to assess your adaptability in different learning situations.

The Kolb Learning Skills Profile
© 1993 Experience Based Learning Systems, Inc.
An instrument to compare your learning skills to your job skill demands.

The Kolb Team Learning Experience: Improving Team Effectiveness through Structured Learning Experiences
© 2004 Experience Based Learning Systems, Inc.

Available from David Kolb’s website – www.learningfromexperience.com

Bibliography of Research on Experiential Learning and the Learning Style Inventory. Updated regularly.

Kolb Learning Style Inventory Version 3.1 Technical Specifications
Updated regularly.

Additional information on Experiential Learning is also available from this website.