

The Art of Learning

Based upon years of observation of adult learners in both our face-to-face classroom courses and using our Mentored Email™¹ distance learning methodology, it is fascinating to see how the rate of information absorption (ie, learning) varies from person to person. The rate of learning does not seem to be correlated to a person's IQ, industry or role in the workforce. If anything, people who absorb the learning more slowly seem to retain the information longer².

It would appear the ability to learn is a skill that is exercised naturally by younger people, but as one grows older this natural ability seems to fade with only some adults maintaining their innate capability to learn, frequently linked to active practice via a recently completed university course, etc.

Assimilating new information

When presented with a large volume of new information (eg, a PMP course) the rest of us need to learn how to learn! Some of the easier ways to absorb, make sense of, and retain information include:

Using analogies and metaphors

You can learn abstract processes by creating metaphors for more common events. So whenever you learn a fact, ask yourself what the idea is similar to in the tangible world; eg, a data store in a software program may be a cupboard with different things on each shelf.

Build mental pictures

If you break apart a complex mathematical formula into components, you can try to imagine what it would be like as a graph or how each component influences each other in a railway switchyard.

Build on the basics

Do a bit of extra research on your most difficult topics focusing on their foundations. You might not understand the more complex theories perfectly, but it makes understanding your testable material much easier³.

Become the teacher

The act of explanation creates connections. Ask yourself how would you explain what you're learning to someone else? Teaching forces you to simplify and break down complex ideas and then re-connect them to build the overall picture.

Stop writing transcripts

Try to free yourself from rigid note taking (the course handouts fulfil his need), instead write down ideas in branches and connections. Add your own thoughts, diagrams and arrows linking ideas so you have a web of information. 'Mind mapping' tools are great for this but pencil and paper work just as well.

Draw diagrams

Most people think in pictures and maps. Research suggests drawing will increase your concentration and help develop the connections between ideas. A picture may not be worth a thousand words, but it can often illuminate the connections that lead to a greater understanding.

¹ For more on *Mentored Email*™ see: <http://www.mosaicprojects.com.au/Training-Mentored.html>

² There are many theories about learning, this map developed by Richard Millwood outlines the most prevalent. <http://www.mosaicprojects.com.au/WhitePapers/WP1028-Learning-Theory.pdf> An interactive version of the map can be accessed at: http://hotel-project.eu/sites/default/files/Learning_Theory_v6_web/Learning%20Theory.html

³ Each of our courses contains references to a wide range of additional materials and we have access to much more.... The starting point is: http://www.mosaicprojects.com.au/PM-Knowledge_Index.html



Do the work

Most of our courses are focused on PMI and other project management exams that use multi-choice questions as the testing medium. Practice is essential (both open and closed book)⁴.

There are many more sophisticated memory techniques available in a range of books on the subject but certainly in our areas of teaching, the ability to link ideas and understand the flow of both ideas and information seem to be the key to real understanding.

Kolb's experiential learning style

When you run into a difficult question use it as a learning experience; Kolb's experiential learning style theory is typically represented by a four stage learning cycle in which the learner:

1. Concrete Experience - (a new experience of situation is encountered, or a reinterpretation of existing experience) - you don't like the question.
2. Reflective Observation (of the new experience. Of particular importance are any inconsistencies between the experience and your understanding).
3. Abstract Conceptualization (Reflection gives rise to a new idea, or a modification of an existing abstract concept) - no two questions are the same, you need to understand the concepts.
4. Active Experimentation (the learner applies them to the world around them to see what results) - apply your enhanced understanding to a similar question when it occurs and repeat the cycle.

Making the most of a training course – as an individual

The second part of this white Paper highlights some simple ideas that can help you to get the most from your training course.

Before the training course

- Have a clear picture of what you hope to get from the training course expressed in terms of the benefits to you: a pay rise and promotion is more motivating than a PMP credential.
- Do any pre-course reading and make a note of any questions to bring along and ask the trainer. You won't pay extra if you make the trainer work hard.....

At the training course

- Arrive prepared.
- Be open to learning new concepts, even if these challenge your previous understanding.
- Don't be afraid to ask the trainer to clarify points; remember that if you don't understand something, it is likely that you are not the only one.
- Share experiences when they are relevant and learn from others in the group, they are likely to be from different industries and have different experiences; take advantage of the fact that you're surrounded by people with diverse work backgrounds.
- Dedicate time each evening to completing your homework activities, or reviewing the work covered during the day (our training courses cover a great deal of content in a condensed fashion – reviewing the material each day helps to cement the ideas in your mind).

⁴ For more on understanding your **test scores** see:
<https://mosaicprojects.wordpress.com/2014/02/02/understanding-your-pmp-score/>



After the training course

- Use the resources provided during the training course to help you integrate the concepts into your every day work life (the first 24 hrs after the course are a critical period for reinforcing learning by practice).
- Make the effort to change if you have discovered better ways of approaching your work, but remember you will need to explain the benefits of the change to people who did not attend your training sessions.
- Recommend the training to any colleagues that you believe will benefit from it, being part of a group of people helps retain and reinforce your learning.

PMP / CAPM / PMI-SP Specific tips for the Exam

- Find others who are also studying to obtain their PMI certification and review key items in the *PMBOK® Guide* together. Studying with others is a great support system during the exam preparation process, especially if you are a social learner (see below).
- Answer many, many, many practice questions. There are close to hundreds of questions built into each of our courses and we have more in reserve.
- As you are nearing your exam date create a data dump sheet with key formulas, definitions, and other items you want to make sure you remember for exam day. Practice recreating it; because that is what you are going to need to do on your exam day.
- Know where your exam site is. If you live far away from the exam site and can't drive by, make sure you have reliable directions to the Prometric test centre. Allow for plenty of time to get to the site without causing yourself unnecessary additional stress.
- Remember to have the identification you told PMI you will use with you; you will need to prove who you are in order to take the exam.
- Do not bring too much stuff with you. You will have to lock everything up because you can't take anything into the exam room with you Snacks and drinks are a good idea, these are placed on top of your locker.
- If you are nervous about taking a computer based exam, don't worry because there is a 15 minute tutorial at the beginning of the exam that does not count toward your exam time. If you are comfortable taking a computer based exam, use this time to recreate your data dump.
- If you start to feel nervous or overwhelmed, take a few deep breaths, tell yourself "you've got this", and keep going.
- Answer all of the questions you know and mark those you don't for follow up. Some questions/answers later in the exam may help you answer those you had marked..

Learning new things should be an enjoyable process at all stages of life and career, and is becoming increasingly important to stay competitive in a rapidly changing world. Learning how to learn effectively is the first step along the journey.

Understand your learning styles

The first preference is recognising if you are a social or solitary learner:

- **Social** (interpersonal) learners prefer to learn in groups or with other people. Classroom courses are ideal but if you are using a distance based course make sure you interact with the course deliverer – facilitating this interaction is a key design aspect of our Mentored Email™ courses⁵.
- **Solitary** (intrapersonal), you prefer to work alone and use self-study.

Your actual learning style defines the best way for you to assimilate information there are 5 primary styles:

- **Visual** (spatial), you prefer using pictures images and spatial understanding.

⁵ For more on *Mentored Email™* see: <http://www.mosaicprojects.com.au/Training-Mentored.html>



- **Aural** (auditory-musical), you prefer using sounds and music (poetry, rhymes).
- **Verbal** (linguistic), you prefer using words both speech and written.
- **Physical** (kinaesthetic), you prefer using your body, hands and sense of touch.
- **Logical** (mathematical), you prefer using logic reasoning and systems.

Training courses include all of the above to a greater or lesser extent. To support your preferred learning style, consider adapting elements of the course to fit in with your preference. Over the years we have had an amateur musician make the Earned Value formulae into a song and a strong visual/logical thinker build a linked PowerPoint presentation tying all of the *PMBOK® Guide* inputs and outputs together - both passed their PMP exams. Similarly whilst most people enjoy our 'Process Challenge' card game included in all PMP and CAPM courses, this tactile way of learning is particularly important to kinaesthetic learners.

However, learning styles (and you preference) is only part of the equation, you also need to use effective learning techniques or processes⁶. By recognising your learning style, then adapting suitable elements of the course materials to your preferred style you will not only enjoy the learning process more but will also learn more.

Making the most of a training course – as an organisation⁷

During the planning for project-related training you can give it additional rigor to enhance the probability of success by including Post-Training Evaluation. The evaluation should check that the content has been learned and that the learned content is being applied in the work place. Both aspects are required for success.

Your plan should include some way to evaluate training success beyond a simple check-off that training delivery is completed some of the options include:

Satisfactory proof that the required learning is achieved during the training. To avoid the problem of training delivery being completed but needed skills not being mastered, design an evaluation method to check early that skills are mastered in the training program:

Pilot the Training. Plan for a discrete training event to pilot the training with a group of trainees. It should realistically simulate how the training will be conducted.

Evaluate Pilot for Learning Success. Participant surveys only gauge the reaction to the training. Develop a specific skills check to confirm that expected skills are mastered. If the skills check determines there are problems, there will be time to fix it for the remaining training before it is too late.

Satisfactory proof that the learning is being applied on the job. Include a post training review after the workers have had time to use their skills:

Conduct a Survey. Plan to conduct a quick survey. Ask recent trainees whether or not they are using their new skills. If not, have them specify the reason, including: if they do not know, or if the managers or processes are an obstacle to use of the new skills or if 'management' do not really care about whether the skills are being used or not. If the survey finds obstacles, you will have the information necessary to break through them more quickly.

Benefits of Better Rigor in Planning. Once you specify these two types of evaluation in your training plan, don't be surprised if those involved, including trainers and managers, employ a new rigor in their execution. There is something about clarity in evaluation that focuses those who execute on the priorities that matter.

⁶ **Learning techniques and processes** are discussed in depth in our blog post, 'The Psychology of Effective Learning': <http://mosaicprojects.wordpress.com/2014/09/18/the-psychology-of-effective-learning/>

⁷ See also Mosaic's **Course Development** web page: <http://www.mosaicprojects.com.au/Training-Development.html>



Apply the learning. Think Smart and learn before you do something

Einstein once said that the definition of insanity is doing the same thing over and over and expecting a different result each time! Whilst every project is unique, it is highly probable that someone has completed a similar project, or solved a similar problem to the one that you and your team will soon undertake.

There is a huge amount of historic material, both technical and generic, available to everyone, both in the public domain and in proprietary ‘Lessons Learned⁸’ systems. However, not everything is recorded and codified. A *lesson learned* may be in the form of knowledge that is incorporated into a work process, policy, or guideline, a tip to enhance future performance, a solution to a problem or a corrective action, or an example of an adverse situation to avoid.

To make the best use of these past lessons and find the really important pieces of knowledge you need, you need to *think smart* and ask yourself:

- What are the most important things I need to know?
- Where can I find the answers to my questions?
- What sources can I re-use, and where are they located?
- With whom can I discuss it?
- Make use of our free ‘speed coaching’ for life⁹.

The key is to ensure that you *think smart* and equip yourself with the knowledge that will help make your project or task a success. Don’t do things the same way that you did last time if you want to see a different outcome! And don’t go to the same people you always approach to learn from past events if you want new information. Think *outside the box* and actively seek out new insights and ideas by approaching knowledgeable people with different perspectives and actively listening¹⁰ to their stories. Only after you have gathered the information can you filter and synthesise the new knowledge needed to solve your problem.

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This White Paper is part of Mosaic’s **Project Knowledge Index** to view and download a wide range of published papers and articles see: http://www.mosaicprojects.com.au/PM-Knowledge_Index.html

⁸ For more on **Lessons Learned** see: http://www.mosaicprojects.com.au/WhitePapers/WP1004_Lessons_Learned.pdf

⁹ Use our **speed coaching** to access help and advice from the experts (we don’t employ staff to filter calls). Speed coaching sessions last 10 to 15 minutes, by email or telephone, and focus on a specific question that you need an answer to – free to all course participants ‘for life’.

¹⁰ For more on **Active Listening** see: http://www.mosaicprojects.com.au/WhitePapers/WP1012_Active_Listening.pdf

