'WHAT IS A 'SUBJECT MATTER EXPERT'?'

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The forgotten art of mentoring

Emphasising the importance of mentoring, Michelle Unger, ROSEN Group, and Phil Hopkins, Phil Hopkins Ltd.,* explain how knowledge is transferred between a mentor and mentoree, noting the importance of 'wisdom' in this transfer, and how a mentoring programme can be introduced into a company.

> t seems 'competence' is becoming the new 'in' word in engineering, and engineers now need to be demonstrably competent to perform their duties. Competence is obtained from a mixture of experience, training, and mentoring: everybody understands experience and training, but does everybody understand the concept of mentoring?

We normally associate mentoring with a personal and trusting relationship between a more experienced and/or more knowledgeable person, and a less experienced or less knowledgeable person. The relationship is focused on the development of the less experienced/knowledgeable person.

Historically, mentoring in business has its roots in the craftsman-apprenticeship relationship. Artisans learnt everything through mentoring: before books, computers, etc., mentoring was the only way to transfer knowledge.

Mentoring is still very important: there are clear business benefits from mentoring, as we know that most successful people in business have benefitted from a mentor, and mentoring is even more important than training in developing competencies.

So, what is the problem? Well, mentoring today can be very difficult due to staff reductions, and over-stretched managers. This means that a resource even more important in competency development than training may be overlooked.

Influential individuals

Have you ever worked with somebody who has really made a difference to your career? For example, when you were at school, did a teacher give you good career advice that you still remember? If your answer is 'yes', you have been influenced by a mentor.

The word mentoring comes from a Greek word meaning enduring. The traditional definition of mentorship comes from Homer's poem, *The Odyssey*. Odysseus (Ulysses) travelled the world for years at a time. He entrusted Mentor (Athena, goddess of war and wisdom, disguised as a man) with the care and education of his son, Telemachus.

Thus, traditional mentoring emerged as a relationship between an older, wiser and/or more experienced person. This person functions as a wise teacher and confidante, coaching, inspiring, protecting, and, helping the mentoree to realise their aspirations and develop positive qualities.

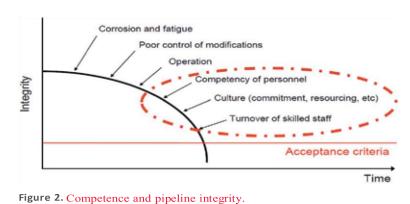
Mentoring is still essential today, but many companies do not actively promote it, and many older, wiser staff do not have the time to mentor. But, it may be the best staff development tool we have.

Competence

In any profession we need staff who are competent. Competence is a mix of skills, knowledge, and experience (Figure 1). Values such as ethical behaviour are also essential in competency development.

The pipeline industry has always required its staff to be trained and qualified; for example, the USA Pipeline Safety Regulations Federal Register Part 49 CFR Subpart O §192.915 (pipeline integrity management) states: "... any person who qualifies as a supervisor for the integrity management programme [must have] appropriate training or experience in the area for which the person is responsible.... the integrity management programme must provide criteria for the qualification of any person..."

Design standards, such as ASME B31.4 emphasise the need for competency: "the code is not a design handbook; it does



not eliminate the need for the designer or for competent engineering judgment."

The international pipeline standards, *ISO/PDTS 12747*, now explicitly links competence to the maintenance of safety (integrity) in an ageing pipeline (Figure 2).

Competence is now a hot topic in the USA. A crude oil pipeline owned by Enbridge failed in USA in 2010, with costs above US\$1 billion as of September 2015. The USA pipeline regulator stated in its report on the failure: "the management of training and competency is particularly critical for an organisation such as Enbridge."¹

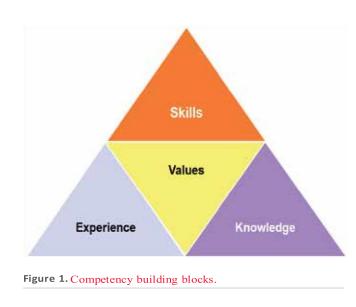
The evidence above is clear: competence is now on the agenda in the pipeline industry, but the industry may be missing a key element of competency. That element is mentoring.

Competence and mentoring

We become competent by a combination of training, mentoring, and experience:²

-) Training is simple to understand: it is structured learning in a skill.
-) Experience is also easy to understand and appreciate: it involves exposure to a skill over time.
-) But, what is mentoring and how do we obtain it?

Mentoring is simple to visualise, and its purpose easy to understand. Training involves the transfer of information,



but not knowledge. Knowledge can only be stored in the human brain – we will cover this in more detail below. Hence, mentoring is how we transfer knowledge to staff. No mentoring – no knowledge. We can now conclude that competence is developed by:

) Training (structured learning).

) Mentoring (learning from others).

) Experience.

But, what is more important? How important is mentoring compared to, say, training? Well, mentoring is very important, as it – surprisingly to many people – may contribute even more to competence than training (Figure 3).² Unfortunately, many of our HR/training/talent management departments fail to recognise its importance, probably because it is not





Figure 3. Gaining competence.

understood. They may spend millions of dollars on training their staff, but nothing on their mentoring.

When developing competence, experience is the most important element. Figure 3 shows the classic split of 70:20:10 to experience:mentoring:training. We can argue about the split, but the point to emphasise is the inclusion of mentoring in the split, and that training may be the least important element of competency.

Understanding mentoring

The confusion with mentoring is often based on misconceptions; for example, mentoring is not:) Parenting (rearing children).

-) Managing (control and command: overseeing the work of others).
-) Coaching (focus on developing agreed skills).

Mentoring is a focus on the individual, where knowledge, guidance, and advice is passed onto staff, based on experience. Mentoring has long been associated with good business sense:³ Richard Branson said: "What do Larry Page, Steve Jobs and yours truly have in common? We've all received guidance from mentors. Yes – even the famously individually minded Apple Founder got by with a little help, advice and support from time to time. No matter whom you are, where you've come from, or what you have achieved, a good mentor is an invaluable asset in business."

We normally associate mentoring with a very personal, trusting and caring relationship between a more experienced and/or more knowledgeable person, and a less experienced or less knowledgeable person. The relationship is focused on the development of the less experienced/knowledgeable person. It can be a structured process, but does not need to be formal. But a word of warning, mentoring is very difficult. The US Department of Labour noted that mentoring is the most complex type of human interaction.⁴ It is more complex than teaching, counselling, supervising or coaching. It is complex, as it has to fulfil many functions within the mentoring relationship.

What is a mentor and mentoree?

The mentor is often described as a "trusted counsellor or teacher."⁵ He/she needs to be intelligent, knowledgeable, and wise (more about wisdom later). The mentor may be older or may be younger, but they need to have a certain expertise that develops the mentoree, and have a greater wisdom.

The mentoree (the one who is being mentored) is sometimes called a protégé. The word protégé is from the French verb protogere, meaning to protect. There are many examples of mentor and mentorees:⁶

) Socrates (philosopher, 470 - 399 BC) and Plato (philosopher and mathematician, 428 - 388 BC).

) Paul Gauguin (1848 - 1903) and Van Gogh (1853 - 1890).

) Jay Z and Rihanna.

But few people can mentor, and the mentoring is not easy:⁷ "Effective mentoring can be learned, but not taught... most learn to mentor by experimenting and analysing success and failure, and many say the process of developing effective methods of mentoring takes years."

Mentoring is nothing new

Historically, mentoring in business has its roots in the craftsman-apprenticeship relationship.⁸ The artisans learnt everything through mentoring.⁹

Mentoring was usually carried out within a management chain: you had a father as a line manager, and a grandfather as your manager's manager. This male bias is a little non-pc, but that is how it was described. The grandfather was not directly involved with your line management. This meant that he/she could be a mentor. Today, this chain often does not exist.

Mentoring has become a big issue in business in the past 30 years.¹⁰ This is probably because it has been forgotten/ stopped but mentoring is a tradition – it is not a new business tool! Before books, computers, etc., it was the only way to transfer knowledge.

Mentoring involves transfer of knowledge

The mentor helps the mentoree gain some of his/her knowledge; therefore, it involves a transfer of knowledge. Knowledge is transferred from the mentor (the provider) to the mentoree (the seeker). The provider must want to give, and the seeker must want to receive. In mentoring, this transfer is within a personal relationship agreed between provider and seeker. But, what is knowledge?

Knowledge

Knowledge is information in action:

-) Information is simply a collection or linkage of data that may form a conclusion following processing/organisation, and information can be easily stored and shared. Hence, information can be transferred easily by training.
-) Knowledge is what we know. Knowledge is based on data, information, and, experience: it can only be stored in the brain. Hence, mentoring is an excellent way to transfer knowledge.

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Wisdom

Knowledge requires experience. The mentor uses his/her wisdom powers to facilitate this transfer. Wisdom is using your knowledge in a correct and intelligent manner; for example, we all have the knowledge to manage money, but many of us can become bankrupt by making unwise decisions. Wisdom captures values: the mentor bases his/her knowledge transfer on values. There is little to be gained by being mentored by someone with the wrong values: a master locksmith or a safeblower could mentor a young locksmith. Hence, wisdom requires more than experience. It also needs values. So, a mentor needs to be knowledgeable and wise.

Transfer

Many companies believe they can manage and transfer knowledge by using their intranet, virtual communities, etc. These platforms are good for managing and distributing information, but not knowledge. So, how do you store and transfer knowledge?' Knowledge can only be stored in the human brain; therefore, we need to focus on its transfer. Mentoring allows this transfer from mentor to mentoree. Historically, knowledge, in particular values and heritage, has been transferred from one generation to another by storytelling: before schools, paper, radio, film, and the internet, storytelling was the only way to transfer knowledge of morality, etc..

Today, storytelling is still the best way to transfer knowledge and values (ask any child) mainly because all parties are engaged and can pause and ask for clarifications and perspectives. These attributes are not present on intranets, TV programmes, films, YouTube clips, etc.: there is no personal engagement. Social Media can overcome this problem as it is a powerful virtual platform, and involves engagement.

The best stories focus on values: good ones, bad ones, and future values. The best knowledge transfer aims at inspiring the mentoree, with the mentor no longer telling everybody how brilliant he/she is.

Mentoring will mean listening to experienced staff. This can be good – most of the time – but younger staff may have to listen to older staff, even when they go on, and on, and on. What should take 1 min., takes 45 mins. with older staff, but the wisdom will be within those timescales and worth the wait.

What about coaching?

Coaching is a one-to-one relationship, involving a series of conversations, just like mentoring. It may be confidential, but its main purpose is to identify opportunities usually short term, and focused on a competency. Mentoring does not have a fixed agenda, it is related to the development of an individual, without a variable outcome, is long-term, and focused on the individual.

Linking coaching, mentoring, and friendship

Many mentors and mentorees started in a 'coaching' relationship. The main purpose of coaching is to identify opportunities for improved performance. The chemistry was right, and this coaching can develop into mentoring. It is natural for this mentoring to go deeper, and for friendships to develop (Figure 4). The reverse is also true: it is natural for coaching and mentoring relationships to end. Indeed, coaching and mentoring usually have a finite life: a time will come when the mentoree no longer needs the mentor, or the mentor no longer wants the mentoree.

Mentoring: formal or informal programmes?

How can we ensure mentoring is part of our company's culture? How can we introduce mentoring programmes? First, we need to decide on a formal or informal programme.

Mentoring is usually a relationship between two people, which can be formal or informal:

) A formal, structured programme specifies the seeker (mentoree), provider (mentor), and the knowledge (tasks) to be transferred. The seeker/provider relationship is not a personal one, as the transfer is bespoke and controlled. This relationship can be shortterm (say, one year) and ends when stated goals are met.

) Informal mentoring is more objective-driven (career development), than task-driven (increase sales). The relationship is long-term, with outcomes that may be unknown, with only indirect organisational benefits.

Mentors and mentorees self-select, and there is no need for the mentor to be a specialist.

Short-term, strategic knowledge transfer can be formal, as it is easy to define, and measure progress. This is more like coaching (see above). Longer term mentoring will probably be more informal. Also, you need to match the mentoring to your company's culture. If it is a more formal culture, you'll need to go more formal, and vice-versa. The authors have looked at pipeline engineering companies, and discovered:

) Companies often confuse coaching with mentoring – indeed one company described their approach to mentoring, but it was actually coaching, where the staff was assisted in developing skills.

for improved performance and practical ways forward. It is important "a coach is someone who intervenes and is designed to improve the performance of an individual in a specific task."¹¹

This is different from a mentor: a mentor is a "critical friend, or guide who is responsible for overseeing the career and development of another person outside the normal manager/ subordinate relationship."¹¹ Coaching has a fixed agenda, related to a task, with a clear outcome,

Actually, this sounds far more difficult than it is. A manager is focused on the day-to-day tasks of his/her company, and delivering the company's goals. The manager will periodically assess his/her staffs' competence, and check development, and set targets. The mentor can be formally involved in this process, as the mentor is assisting in competency development, and can check the staff's competency assessment, and the manager's assessment (Figure 6).

Additionally, the mentor can be informally involved in staffs' periodic performance review (competence and performance reviews have differing goals), as an adviser on



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-) Companies can be offered professional mentoring services, but management do not use the services, as they are confused about its benefit or application.
-) Formal mentoring programmes, with detailed documentation, can be in place, but never used due to the formality, and lack of understanding of the benefits of mentoring.

But whatever the programme, the roles must be clear, and the benefits clearly identified. Also, it is best to focus on selecting staff for a mentoring programme who are likely to stay in the company for a reasonable time: this is for the benefit of both the mentoree and the company.

Goals of mentoring programmes

Companies will initiate a mentoring programme, but there needs to be clear, 'SMART' objectives. High retention rates? Develop young staff quickly?

The mentor's goal is relatively simple: he/she is focused on developing an individual, and aiming to blend experience, knowledge, and values (Figure 5).

Whatever the objectives, companies will need to plan, budget, and execute the programme. Even informal mentoring programmes will need some guidelines, with clear objectives and values. It will also need a budget, as mentoring is not cheap.

Working with line management

How does a mentor work with a mentoree's line management? Is there a conflict? How can the mentor and manager combine to develop staff?

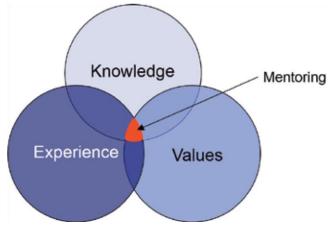
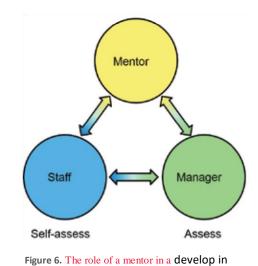


Figure 5. The mentor's goal.

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training/ experience needs. The mentor is impartial. The two big advantages of mentoring is that the company will have competent staff, and the staff will see



mentoree's competency management.

a structured manner.

their careers

Concluding comments

This article has attempted to remind the reader of the lost art of mentoring. It has emphasised the crucial role that mentoring plays in developing staffs' competencies, and how it is even more important than training. The article has also noted the increasing emphasis on demonstrating competency in the pipeline industry.

Historically, and today, successful people have been mentored. The mentoring is not easy, and it will take up time, but if a company ignores mentoring, it is not developing its staff. If you do not develop staff, competencies will suffer. 🖤

Bibliography

- Anon, "Enbridge Incorporated. Hazardous Liquid Pipeline Rupture and Release, Marshall, Michigan, July 25, 2010", NTSB Accident Report: NTSB/PAR-12/01, PB2012-916501, July 2012.
- LOMBARDO, M. M., "Career Architect Development Planner 3rd Edition (The Leadership Architect Suite)," January, 2000.
- ROCHE, G. R., "Much ado about mentors", Harvard Business Review 57 (1), 1979, p. 14 - 28.
- HENRY, S. M., "Does Mentoring Matter? Rethinking Support for New Primary School Principals", UMI dissertation, Proquest, USA, July, 2008.
- HUSSAIN, Z., "The Good Mentoring Guide Changing Attitudes Programme", Global Synergy Solutions, 2009.
- PATEL, S., "Why Every Entrepreneur Needs a Mentor", Forbes, 11 December 2014, http://www.forbes.com/sites/sujanpatel/2014/11/12/why-everyentrepreneurneeds-a-mentor/
- HANDELSMAN, J., et al., "Entering Mentoring" Hewisconsin Programme for Scientific Teaching, 2005.
- GAY, B., STEPHENSON, J., "The mentoring dilemma: guidance and/or direction", Mentoring and Tutoring, 6 (1), 1998, p. 43 - 54.
- MONAGHAN, J., LUNT, N., 'Mentoring; persons, processes, practice and problems', British Journal of Educational Studies, Volume 40, Issue 3, 1992.
- COLLEY, H., "A 'Rough Guide' to the History of Mentoring from a Marxist Feminist Perspective", Journal of Education for Teaching 28 (3), 2005, p. 257 -273.
- 11. KRAM, K. K., "Improving the mentoring process", Training & Development Journal, Vol 39 (4), April 1985, p. 40 - 43.