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Supply Chain Learning – The Role of Games

By John Potter, Jerry Forster and Edward Sweeney

Introduction

It is well recognised by most successful organisations that people are an asset and that improving their performance, abilities and capabilities is a key requirement for sustainable business growth and development. However, the training budget is one of the first budgets to get cut at the first sign of a business downturn. If subsequent downsizing results, it soon becomes apparent when the business outlook improves that fewer people have to perform at a higher level if the organisation is to take advantage of the upturn. Following this logic, the training budget should be increased during a downturn so the organisation can get a jump start when the business outlook improves, thereby gaining a competitive advantage. Interestingly, compared to recessions in the late 20th century, in the current recession many businesses have reduced the working week rather than making people redundant. They have done this knowing it makes good business sense given how long it can take to develop a skilled workforce. For many organisations now could be the right time to invest in training, and what better way than gaining a hands-on and detailed understanding of issues than playing games simulating the "real business environment".

The Basics for Good Learning

Learning Phases

The four stages of learning require differing approaches / styles of teaching as shown in Figure 1.

The four stages will always apply when learning any new skill and it does take time to go through the four stages. Ignoring the stages and applying the inappropriate teaching methodology can result in de-motivating participants and failure to achieve training objectives.

Subconsciously incompetent – "don't know, that I don't know." At this stage the learning objective is education to create awareness, the "how" and relevance to the business / individual.

Consciously incompetent – "now know that I don't know." This becomes very apparent when the learning is put into practice. This stage is critical to skill development and motivation. It is often the stage when confidence dips and the decision to give up are most common.

Consciously competent – "now know how to do." This is achieved through practising to improve capability and performance.

Subconsciously competent – "don't need to think." This is demonstrated by an apparent "automatic" ability to perform a skill. It is at this stage that the capability can start to be skilfully and appropriately applied to maximise performance. It is also the stage when people may think they have nothing to learn, so why bother with training!

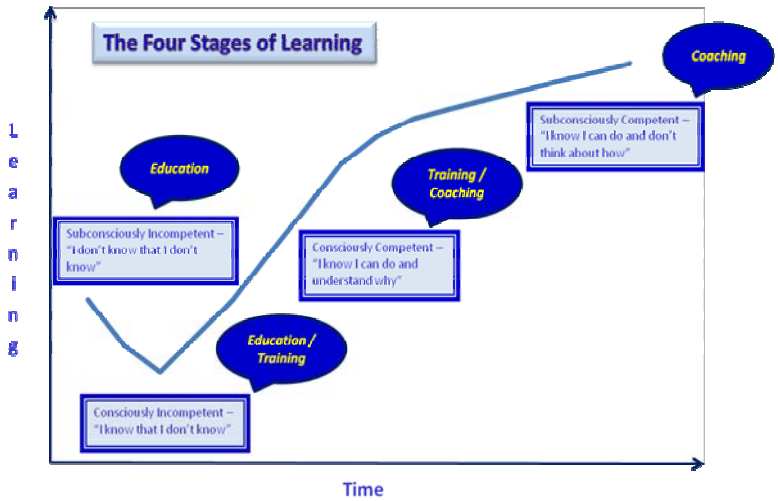

Figure 1: Four Stages of Learning

Learning Styles

People learn in different ways, or at least have preferred ways of learning.

Activists:	Learn by doing – activists want to get on with trying out new activities and are often willing volunteers
Pragmatists:	Want to understand how new activities can be applied in practice so once this is understood like activists they are keen to try out new activities
Theorists:	Often perfectionists and logical so keen to understand the principles before trying a new activity
Reflectors:	Cautious, careful, good listeners and will want to watch others before trying a new activity

Preferences for Receiving Information

- *Visual Learners:* Learn best from demonstrations and diagrams
- *Auditory Learners:* Learn best from explanations
- *Kinaesthetic Learners:* Learn best from demonstrations and practising

Good training should cater for all four styles and three preferences for receiving information. Therefore any process that aims to improve an individual or team performance, abilities and capabilities must develop a training programme that reflects:

- The four stages of learning, the different the learning styles and preferences to receive information; and,
- Relevance to personal development / team performance / business objectives

Learning From Sport

The learning and crossover between business and sport is becoming more relevant and commonplace. The traditional football manager is now more frequently the team coach and part of a bigger team responsible for team / squad selection, training and management. In individual sports the player / coach is being replaced by a multi functional team e.g. "Team Murray".

No sports person / team trains and only competes in the event targeted e.g. Olympic Games, World Cup, Grand Slam without using other events as part of the preparation – friendly matches, pre season tours etc.

Business does not normally operate around a single event every 4 years, but is continuous day in day out, so "on the job training", pilots, and test marketing is how organisations test ideas. Given business demands, how does an organisation build the team? In the supply chain, performance of the chain is determined by the weakest link. The organisation is a team of more functions than found in the typical supply chain (e.g. Finance, Legal, Marketing, Information Technology) but all must play a role if an organisation is to achieve its objectives and maximise business results.

Whereas the rugby team will have internal competition between players for places in the team, it is unlikely the forwards regard the scrum half as a competitor for team selection. However in organisations internal competition can be more intense than external competitors – "organisational politics." This will be seen through competition within a department for promotion and inter departmental competition for influence and share of budgets. This extends throughout the organisation and not

uncommon to be most intense at Board level!

Competition can be healthy to bring out the best performance of an individual / department. However it can easily turn negative - adversely impacting overall organisational motivation, financial performance, market share, retention of the best talent etc. In many organisations competition between Sales and Marketing, Marketing and Production, Production and Logistics is common resulting in suboptimal results. The Supply Chain "profession" was conceived to optimise the supply of product and services. Sales and Operations Planning (S&OP) brings together all functions working together to achieve one business plan, and recognising that the "the whole is greater than the sum of the individual parts." The history books of sporting endeavour will testify this concept with numerous examples of the apparent underdogs being triumphant.

Team Building

Developing an effective team goes through the same four stage learning process as described above, making team building two dimensional in terms of improving individual performance levels and overall team performance. This is achieved through:

- Recognition of the role of each player
- Focus on common goals and objectives
- Alignment of strategies
- Rewarding the whole, not the parts. Success and failure must be shared to prevent a culture of blame

Business managers recognise the need for the organisation to work together and offsite management team training events - climbing mountains, building rafts from oil drums and ropes to cross a supposedly crocodile infested river - are common. Sometimes budgets and / or numbers being trained result in these exercises being simulated in the "classroom." Either option (provided the exercise is well organised and structured) can be valuable a part of any training session to:

1. Create an awareness of team work
2. Demonstrate points of learning
3. Identify organisation culture and / or behaviours
4. Have fun!

These are all worthwhile objectives, but whatever the reason or

original objective for including a game in a training event, often time allocation does not permit the learning potential to be fully utilised. The four stages of learning identify that maximising performance requires time for practice supported with good coaching.

For example games used for team building usually bring out the competitive side of participants. They are often executed at a frantic pace, chaotic and noisy. In pursuit of being the winner the original training objectives can get lost. However, they are very accurate in identifying how an organisation and individuals behave, albeit exaggerated, due to the time pressure and no organisational support structure. The winning team normally gets the least learning. Cynics claim this is because they have least to learn. Analysis of the results would reveal the missed learning opportunities:

- Role of leaders and leadership styles
- Importance of cross functional contributions
- Communication – listening, clarity of argument, assertive v. aggressive – to make the necessary choices
- Analysis and follow up – "plan, do, check and act"
- Team dynamics – finding the right roles for team members to optimise team performance
- Controlling the environment – reflects organisational culture and opportunity to study individual / functional / departmental behaviour
- Maximising team knowledge and capability

Optimising the Use of Business Games to Improve Team Performance

To get the most out of games as part of a training programme the following points are important.

1. Must be part of a programme – it takes time to analyse the results, explore the points of learning and more importantly how to skilfully apply within the organisation.
2. Relevant – not necessarily directly but participants must be able to relate / apply to the organisation and / or business objectives.
3. Cross functional – not always essential but if participants represent their function it will reflect on how the organisation functions. However, it can also be used to create learning on the challenges and difficulties of different functions e.g. the Sales Director responsible for the factory will demonstrate the issues Sales can create for Manufacturing. It is important to have a clear objective of why the game is being played.
4. If numbers permit, an organisation can set up different teams to play the same game and get multiple learning opportunities.
5. A well structured game should ensure roles and execution accommodates the differing learning styles and preferences as well offering sufficient cycles of the game for teams to progress through the four stages of learning.
6. Opportunity to observe and explore organisational culture and behaviour in a safe environment.
7. Experiment in different roles, strategies, behaviours with no financial risk to the business.
8. Create competition, motivation and fun off a foundation that is a serious business related objective to improve team performance, that will be ultimately be reflected in improved financial results.

NITL, in collaboration with SCALA Consulting, has launched in Ireland an internet-based game designed to enhance knowledge and understanding of successful supply chain strategy. Conceived, developed and supported by experts in the field of supply chain management the game was first run in the Netherlands last year. Some 280 teams of four people each took part and the game was highly acclaimed. The game, called *The Fresh Connection*, incorporates the principles for optimising the use of games to improve team performance providing an experimental learning environment where in a realistic, competitive environment teams are able to test their vision, their strategies and their tactics. It is an accelerated learning experience for all in-

volved in the supply chain including procurement, sales and manufacturing. The game demonstrates the impact a supply chain has on company profitability and provides all participants with an insight into the teamwork which is required to make real, tangible improvements in the supply chain and company performance. In addition to Ireland, *The Fresh Connection* is being run in the US, Netherlands, Belgium. Italy, Denmark, Switzerland and UK.

Over 6 weeks representing 3 years in the company's development, teams make strategic and tactical choices. The intelligent software behind the game calculates the consequences for each team's operation, with the results of the various teams' weekly choices becoming the starting point for the next week's round.

Teams taking part in the Irish competition starting in early 2009 will manage the product portfolios, compete for customer sales, supplier capacity and category management whilst managing the company through crisis, growth and other complex business scenarios. The objective is to optimise the total supply chain to maximise the company's return on capital.

After the competition, all participating teams receive a performance evaluation report. In this report they will receive feedback on individual and team performance. What were the crucial decisions? What was good, or bad, about the decisions taken? What lessons should have been learned?

Conclusions

Single training events of a good quality are appropriate for specific needs e.g. learn a new process /procedure (e.g. health and safety changes, how to use new software / machinery). Games can be valuable learning and fun in achieving these objectives.

To build an effective team is an on-going process. Like any team sports organisations get new players, new competitors, new business opportunities and threats. Opportunities to practice in business can be difficult / expensive and even impossible to set up. Software will have a "training environment" to test upgrades before "going live." In the same way training to optimise team performance needs to be planned and executed over a series of events such that the learning can be analysed, strategic and tactical changes can be measured to assess improvement and the team can experience the four stages of learning in a safe and structured way so that individual players can maximise their individual performance in optimising the overall team performance. *The Fresh Connection* provides a cost effective way to optimise team performance to improve business results and participants will have fun learning in the process.

John Potter is Senior Partner with SCALA Consulting. *John was formerly European Logistics Director with SC Johnson and has extensive experience in managing strategic change, global implementation of integrated S&OP, and supply chain training. SCALA Consulting is running The Fresh Connection in the UK commencing January 2010.*

Jerry Forster *runs his own independent consultancy company that specialises in supply chain and logistics issues. Based in Ireland, Jerry offers a range of services including: logistics and supply chain strategy and solutions, warehouse and transport design, supply chain re-engineering, and supply chain systems.*

Edward Sweeney *is Director of Learning with NITL. Edward has worked in the SCM field a variety of business and academic organisations for over 20 years. NITL is delighted to be associated with bringing The Fresh Connection to Ireland in early 2010.*