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Power and passion: remoulded teamwork in a plastics factory

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Abstract

Purpose – The purpose of this paper is to document the progress made in a specified period and the experience of managers and staff in sustaining the high performance team approach in a plastics factory.

Design/methodology/approach – Single-case analysis was conducted on data collected through semi-structured interviews and site observations made with two managers and one team of six in a multinational plastics manufacturer (Visy) headquartered in Australia.

Findings – Based on the authors' experiences and literature review a successful high performance team requires clear targets and efficiency standards, communication, rules of behaviour, continual input of facts and feedback, and last but not least – recognition of successes.

Research limitations/implications – The findings are based on observations and interviews conducted in one part of a multinational organization in Australia. No follow-up interviews could be undertaken to track the progress.

Originality/value – No other similar study had been undertaken in this organisation documenting the experiences of a quality improvement team and its interactions with managers. The findings have practical implications for industrial and other kinds of organisations engaged in implementing quality improvements through enhanced teamwork.

Teams: the foundation for survival

Teamwork is so firmly embedded in the human condition that it is hard to imagine any successful venture that does not require it. Groups with better organisation have always succeeded where fragmented or disparate groups have not. As early as 560 BC Aesop articulated the value of teamwork in the following fable:

The Bundle of Sticks

An old man on the point of death summoned his sons around him to give them some parting advice. He ordered his servants to bring in a faggot of sticks, and
said to his eldest son: “Break it”. The son strained and strained, but with all his efforts was unable to break the bundle. The other sons also tried, but none of them was successful. “Untie the faggots”, said the father, “and each of you take a stick”. When they had done so, he called out to them: “Now, break”, and each stick was easily broken. “You see my meaning”, said their father. Union gives strength (Jacobs and Heighway, 1894).

Aesop’s essential message was translated into the commercial realm by Drucker (1992, p. 287) who commented that “nowadays, with the struggle for competitive advantage becoming stronger and stronger, it is almost essential to form alliances”. It is conventional wisdom today that the use of teamwork for achieving operational objectives in many types of organisations can be beneficial (Katzenbach and Smith, 1993; Stott and Walker, 1995; HR Focus, 2002; Butt, 2006; Courtney et al., 2007). The advantages of deploying teams for organisational performance include shared workload, brainstorming on problems, and more opportunity for innovation and productivity improvements (Robbins et al., 2008). These advantages are restated by Bratton (2007, p. 56) as “functional flexibility” and “autonomy”. A high performance team is one in which the benefits are drawn out and sustained. The advantages, however, are not guaranteed in every case. Some disadvantages can emerge from teamwork including, interpersonal conflict, slowed productivity, groupthink, hidden agendas, overly complex solutions to some problems, and difficulties with balancing diversity and equity in work and performance reward allocations (Freedman, 2006; Mullins, 2006; Robbins and Finley, 2000; Bratton, 2007; McShane and Von Glinow, 2003).

The performance of a company depends upon the passion of its staff that in turn affects operational performance, which is generally measured on outcomes of quality, efficiency, and improvement (Davidson et al., 2006, p. 468). The basic control process involves the establishment of standards, measurement of performance, comparison and evaluation of results, and an appropriate response (feedback) to recommence the control process and lead to improvement (Hitt et al., 2007, p. 579). Teams of staff working well together in an appropriately controlled environment can create a high performance work organisation (HPWO), which is a concept closely allied with best practice in operations management (Graetz et al., 2006). According to Kochan and Osterman(1994), HPWO’s depend upon a total quality management approach, including job rotation, quality circles, and high performing, self-directed teams. Katzenbach and Smith (1993) have outlined the features of a successful high performing team and in their view requires clear communication across all levels of organisation, balance of skills (technical and interpersonal), clear and accepted rules of behaviour modelled by the leader, and recognition of successes. The breadth and potential variability of these requirements reveals the challenge of the art of team management.

The aim of the study was to document the progress made since the transformative journey started, and the experience of managers and staff in sustaining the new team approach. While there are a number of studies of team experiences (Hunter et al., 2002; Sohal et al., 2003; Skinner, 2007), this study is unique in that it captures the transitions and changes experienced by the employees upon their journey to ensure long-term survival of the plant. In addition, the changes were initiated and maintained by the employees, not the top level management. The palpable sense of mutual passion for rapid and positive change in the whole team involved in the study is equalled by their pride in the accomplishments achieved.
through teamwork and shows a unique level of reciprocal respect and cooperation among all those involved (Creed and Swanson, 2005).

Company background: the passion from within

Visy Board was founded in 1948. The company has since grown to become the world’s largest privately owned packaging, paper and recycling company (Visy, 2007a). It retains two key areas of focus: packaging and recycling, a head office in Melbourne, Australia, and a variety of divisional offices around Australia and New Zealand as well as North America. The company attributes its success to its human resources, its employees (Visy, 2007a). The company encourages and promotes diversity (of skills, backgrounds, ethnicity, cultures) among its employees and desires to recruit people who are entrepreneurial, innovative, technologically proficient, environmentally responsible, and want to maintain good relationships with the community (Visy, 2007b; Visy, 2007c). The authors’ experiences interviewing staff in one division of the company revealed this commitment is more than a public relations strategy. This plant was once threatened with closure until a change initiative was implemented by the plant manager that required working as a high performance team; one that maximised the benefits of teamwork. Turning around the fortunes of the plant required a “gloves-off” and cooperative approach from managers and shared passion for plant survival amongst all the plant employees. The authors found that the encouragement of teamwork improved the efficiency of the plant and company operations making it more profitable. The distinction between culture and practices between divisions in a large and diverse international operation must be noted and, thus, the findings in this research may not be indicative of wider company goals and objectives.

In this study, the authors focused on one quality improvement team and established contact with two senior managers at the plant to initiate the research. Although the managers were realistic about the difficulties of maintaining functioning teams, this study documented staff and management views of how team processes were being sustained since the major transition from one way of managing the operation to another especially in-light of the reasons for resistance to change (see Kirkman et al., 2000; Katz and Kahn, 1966; Gotsill and Natchez, 2007). Research methodology is outlined in the next section followed by a discussion of the in-depth interview findings under the operational and strategic areas of product quality, efficiency, and systems improvement. The relationships involved in team formation and maintenance are then discussed with emphasis on insights to build the body of knowledge about high performance teamwork. The last section presents the conclusion and future research areas.

Research methodology

This research focused upon the plastics packaging arm of Visy Industrial Packaging and within one plant in this division. Data was collected through semi-structured interviews and site observations. There was already a functioning quality improvement team ready to deliver its findings in a presentation to staff and managers which provided two one day windows three months apart for accessing the required data. The interviews and site observations were scheduled to align with factory shift times. Each series of interviews with
the team and the managers were followed by plant tour opportunities where observations could be made which assisted contextualisation in the development of the case study.

Flexibility for the interviewer and interviewee, higher response rate, direct attention of the respondent, and opportunities to observe non-verbal communication, are some of the benefits offered by interviews (see Burns, 1998; Reddy, 1987; May, 1993; Denzin and Lincoln, 2005; Sandelowski and Barroso, 2007). Some of the methodological weaknesses of interviews include: being expensive, time consuming and risking a lack of direction and loss of content due to lack of interviewee experience (Burns, 1998; May, 1993; McNiff, 1988; Denzin and Lincoln, 2005; Sandelowski and Barroso, 2007). Single-case analysis as part of the case study methodology has been supported in the literature (Thomas, 2004; Appelbaum, 2003; Stake, 2000; Yin, 1994; Sarantakos, 1998). A combination of methods such as observations and interviews to gain information is an accepted part of case study methodology (Tharenou et al., 2007).

In-depth, semi structured interviews (see Tharenou et al., 2007; Burns, 1998; May, 1993) were held with the Plant and Human Resource managers along with the six members of the quality improvement team. “In-depth semi structured” interviews were chosen as a methodology as the authors wanted to get a deeper insight and specific examples of the experiences of the employees and on-site managers during the change process. The interviews during each of the two separate site visits lasted approximately half-an-hour and were tape recorded after receiving written consent from the interviewees. The interviews were subsequently transcribed and sent back to the interviewees for verification of content. This step addressed the question of validity and reliability (Thomas, 2004). Overall, the use of case study methodology assisted the authors in exploring and identifying any implicit issues not recognised by the plant managers and team members themselves, which is possible from being too close to the change process (Thomas, 2004; Tharenou et al., 2007).

Parallel observation of the semiotics in the physical space was a stepping stone towards answering “Why”, “How”, “Who”, “What”, and “Where” questions (the 5 W’s) which, according to the literature, is a pragmatic outcome of the methodology (see Wallace, 1984; Yin, 2003; 1994; Zikmund, 1997). The opportunity to observe the team engaged in real quality improvement activities in their normal work environment fit the paradigm of experience-based enquiry and was crucial in contextualising emerging information in this case (Lincoln and Guba, 1985). The ability to match observations of the workplace with the statements made during interviews gave the authors a basis for richer interpretation of participant perception, an approach supported by the literature (Grant and Cavanagh, 2007; Kogan and Muller, 2006).

In accordance with the University Ethics requirements, to protect the anonymity of the individuals interviewed the managers in this case study have been identified by their roles and the team members by alphabet codes (A-F) to avoid individual identification.

Impacts on performance

The aim of the study of the Visy case was to enrich knowledge about high performing teams. The interview findings have been organised and discussed according to key performance
criteria of: quality improvement, efficiency, and systems improvement. Direct quotations from the interviews with the Plant and Human Resource managers and six members of the team have also been incorporated in the discussion. The analysis focuses on aspects of teamwork impacting on broad organisational performance criteria.

**Quality improvement**

Providing a product of appropriate quality enables a company to establish and maintain its market share, competitive advantage, and long-term survival of business operations (Dimitriadis, 2000). From the time when this plant was at risk of closure until the more stable current environment, its managers and employees continue to meet and generate new ideas to further improve their product quality, as mentioned by team member D:

Using the surveys of the employees in the three hour observations, the team came up with these root causes. We then divided them into five major categories using the fish bone as you can see by our graph.

This statement was delivered as part of a team presentation and revealed the team’s understanding and application of fundamental quality improvement tools, such as Fishbone charts (Whetten and Cameron, 2005). A combination of brainstorming and critical thinking using Pareto charting made the team more aware of the machinery being used for the production and also provided them with an opportunity to communicate the basics of the operational methods to their managers. Increased knowledge of the machinery also assisted team members to become multi-skilled and accordingly learn new skills so that an absence of one employee did not completely stop the production process. Learning of new skills provided a further incentive of identifying potential improvement areas as indicated by team member F:

Yeah, well, at the moment I’m training like in tool changes and actually learning more about the machine and that. And I find you sort of gotta understand the machine a lot more than say what the inspector packers do, but they still basically know how to operate (it) ... and some girls have learnt to change scrap rolls ...

The above-mentioned experience of the team member is indicative of systematic monitoring of critical points in the quality chain, an operations management principle that is vital in quality improvement programs (Whetten and Cameron, 2005; Lawley, 2007). Training to manage contingencies at critical points is an appropriate tactic. The learning of procedures and new systems had taken time and the Plant manager was aware of the time being spent on training as he said:

So it’s slow, it’s been slow. It’s certainly not something that’s happened in a month or two months, but it’s a complete turnaround.

The Plant manager’s comments reflect the recognition of the systemic change that characterises successful initiatives (Escriba-Moreno and Canet-Giner, 2006). Such changes are not easy and can be expected to take significant time and energy to manifest (Carnall, 2007). Nonetheless, the managers need to remember that for any change process to be implemented successfully it needs adequate planning. Poorly planned change will often
result in increased resistance from the team members who prefer to do things the “old way”. In Visy's case this was acknowledged by the HR manager as she understood that making any initial changes without proper planning will not be sustainable in the long-term as evident in her comments below:

First in the beginning we didn't modify ... because we didn't know what the outcome was going to be, what the – how people were going to react to it. And we didn’t know what we were doing.

Inductive problem solving is implied by the HR manager’s comment. The organic nature of complex problem-solving is consistent with the web of connections in a high performance team. Solutions emerge in response to observed events rather than to deductive testing of predetermined hypotheses. This methodology was supported by the team members as attested by team member C:

And that's why our focus is so much about gathering the evidence so we can provide the proof because it's all very good and well to go to management and say, we know we can save this and we’re sure we can improve this, but until they've done all their background information gathering and then can take these graphs and this information and say, but here is the history from the last 12 weeks, and having spent X amount has now given you this improvement that you see on the graph, that’s the proof that justifies the expenditure.

This comment implies that the senior manager is expected to be open to reason and compromise as long as it leads to a positive return-on-investment (ROI). By showing tangible dollar improvements it is easier to convince senior management to risk additional resources to address the technological problems. Dollar figures also assist the management to show the improvement and the long-term profits that would be enjoyed by the shareholders. The team and managers were in a position to be motivated to improve the quality output of their machinery. Goal driven teamwork is generally the most effective and evidence-based, quantitative objectives are most compelling in a commercial context. The self-motivation of the team to focus on measurable goals is indicative of likely success (Albert and Fetzer, 2006). For quality to be maintained, this motivation to focus on task is important:

I really believe it comes down to the training as well. Sometimes you can fix a machine very quick, but why did the machine get in that condition in the first place, okay? And if you don't put in training to ensure that it doesn't go back to where it was, it will because they don't know any better.

When asked about the significance of employee training the HR manager made the above comment which shows the managers know why human resource development (including training) is widely regarded as foundational for sustained team success (Sumanski et al., 2007; Robbins et al., 2008).

**Efficiency**


Before investing in any resources senior management requires assurances of tangible returns. In the same spirit of things a team member (A) talked about ROI and mentioned that:

We've come up with a total cost of $6,976. And now all we ask for is, “show us the money”.

Efficiency is an increasingly critical management objective that interrelates with most other performance criteria (Appelbaum, 2003) including cost and productivity targets. In this comment, which was made at a team meeting in the presence of the plant manager, a level of confidence was being expressed by the team who were prepared to boldly confront the manager with a request for funding. Some managers would not cater for such explicit requests, but the ability to ask for and obtain the resources to generate productivity improvements run to the core of good cost management and two-way communication. Another point to note in the team member’s (A) comment is that the amount being requested was reasonable and justifiable. On a similar theme another team member (E) added:

Well, now that the budget's been approved we'll come up with some solutions on how to implement the changes we suggested and whether we can do it within budget.

There is a sense of positive motivation from the empowering effect of an approved budget. Positive finalisation of one stage of a project sparks enthusiasm for the next stage of the unfinished project. The concrete approval through funding provides grounding for a framework for addressing the problem at hand. Rough (2002) reminds that a defined problem is essentially motivating for a team, but resources are required to turn ideas into reality. Budget approval is more than the transfer of money; it is acknowledgement of the value of the project and validation of the team members' viewpoints to the organisation. Budget approval also reinforces management commitment to solve the problem and ensure the organisation's viability. Within a short period of time, since implementing the changes in the procedures and installing new equipment and technologies, the team was already witnessing positive and quantifiable benefits as evident from the reflections of the HR manager who stated:

Just in the short time that it's been going, which is now six to eight weeks, we've actually picked up an extra 12 hours production per week, which is half a day extra production by the modifications. And I think the interesting thing is the actual cost is very minimal.

This statement, at first glance, defies the suggestion that teamwork and improvements to operational procedures requires a large investment of monetary and non-monetary inputs. One needs to remember that a successful, well-oiled team takes time to form and establish norms before they can begin to perform. The implied context is that, in the case of this site, the employees (in a factory) had already worked as part of a bigger team, collaborated on various shifts, saw each other on breaks, and possibly shared social time outside of factory hours. This is not uncommon in the modern workplace and fulfils the function of Tuckman's group development model in an incubating way (Tuckman, 1965). So, when the quality team came together to focus on this machine efficiency problem, they were capitalizing on an investment already made in team building and, as the Plant manager has noted, the
immediate cost (rather than the “actual” cost) of dealing with the current problem was “very minimal”:

You know, we've had people from head office down here and listening to people on the floor how they've just saved the company $20,000.

Subsequent discussion with the manager revealed an inherent confidence in the rigorous process the team went through before the efficiency improvements were made known. The manager could rely on the whole team process to approve the recommendation and feel confident that head office managers would be impressed.

Responsiveness and flexibility are common buzz words in systems management (Escriba-Moreno and Canet-Giner, 2006):

I've seen in other sites doing similar ... and they totally failed. Now the reason they failed is because they didn't believe in it. They stuck to the structured process and all they did was can the structured process. If you don't like it, change it. It's not written in, you know, stone that you can't change it.

Reflecting on these experiences, the Plant manager explained his own philosophy behind encouraging responsiveness in the team and the systems in the factory environment. The comments highlight the challenges of changing ingrained behaviours and the process of altering norms within the wider factory environment. In this case, the success of the team members permeated the organisation. The magnanimity of the manager was evident during the interview as he recognised the contributions made by other team members.

**Systems improvement**

Performance equates with system outputs (Ingram, 1996). Whole-of-system orientation is important when implementing team performance decisions as it helps improve order, efficiency and effectiveness (Denton, 2006). This section looks at some of the improvements experienced by both the managers and team members in their operating systems, which included tangible things such as new equipment and software, and intangible aspects such as improved vertical and horizontal communication. When asked about the issue of improvements made on systems, one of the team members (C) admitted:

So like I walked into this place of work and I could just see straight away the difference; the way things are clean, the safety, the organisation.

A plant literally grows from the roots up in search of sunlight. Communicating a sense of respect, order, and a welcoming, clean and safe environment, is fundamental to efficient functioning of all types of plants (living and structural). Team member C was already being acculturated by the physical environment and the preparatory work that had gone into it as an expression of the values of the organisation. Sundstrom and Sundstrom (1986) are clear about the interdependent nature of people with their work environments. This team member affirmed the significance of first impressions and other workers in the case tended to support the team maintenance function of keeping a clean and organized environment. Another team member (A) in the quote below cited the step being undertaken by the
managers and team to identify all possible areas of improvements. Input from other members of the team is again being highlighted as significant for this process to succeed:

We put together an operator survey to find out what people’s thoughts were ... We received 70 per cent of the surveys back and these were the average perceptions of the machine. The feedback that we got back from the machine was when it was running well. It was good to run because we could help others with boxes, scrap bins and wrapping of pellets. The main problems were stacking problems and material coming out of the tracks. The way we can improve the performance ... is to look at the stacking problem.

Accurate feedback loops are crucial in systems improvement (Escriba-Moreno and Canet-Giner, 2006; Norman, 1998). The information coming back about how a system is operating allows for a considered and systematic approach to improvement. Conducting an internal survey enabled the quality team to develop a multi-faceted, objective understanding of the problem. Until everyone working in the system understands each other’s position in the system, the system is vulnerable to inefficiencies. Senge (1990) describes systems improvement in the context of the “learning organisation” and uses the concept of “circles of causality”. This is another way of saying that the feedback from operator surveys caused a reaction in the work system that helped to create a generalised mental model that can evolve to standardise each individual’s approach to problems with the machines in the factory production system.

Job rotation and enlargement have been cited in the human resource management process as fundamental steps to motivate employees, reduce boredom, transfer skills, all whilst increasing productivity (Bratton, 2007; McShane and Von Glinow, 2003). If practiced properly these methods also allow an employee to get an understanding of the overall organisational process and identify where their individual contributions fit in and thus the sense of ownership is improved. The additional effect is flexibility with multiple workers being able to operate on various machines. A team member (E) echoed on similar lines when he said:

Well, the thing is we’re all very familiar with the machines because we rotate all the way along the factory.

Ownership of a problem by workers is important for improving performance in a system (Becker, 2007). The problems described by the machine operators indicated one way by which the fine detail of the production system developed through a sense of ownership by members of the team:

Out of all the root causes and feedback we came up with some solutions to fix some of the problems. We’ve recommended to bolt the silicone bath down to the machine ... (and) ... using vacuum cleaners to clean the bath out. We think there’s a need for a new trolley to lift the tools into the machine. Also, obviously, the stacker is a big problem coming out of the Pareto. We feel it needs to be changed. We need some modifications done. We’ve come up with a cost of around $2,000 which would include labour and materials.
One of the things on the machine is the chain lift which was poorly designed ... We've identified there’s a great need for actual planned maintenance. Being a bottle neck machine, it runs virtually 24/7, but it's important to once in a while schedule it out for a day or two to actually perform maintenance tasks.

The above-mentioned comments made team members F and D respectively reinforces the view that, by asking the workers to identify machinery problems that may detrimentally impact the production, the employees felt empowered and came up with both the problem and a means to resolve the issue. The comments also reveal the extent to which system improvement cycles are ingrained in the behaviours of this team. The practical application of diagnostic tools, such as Pareto analysis, is shown in the way that specific solutions are generated. Ishikawa (1976) is clear about the need for workers to own the problems in a system in order to have a capacity for passion to address the problem. Without such ownership, detailed problem analysis and solution generation would be considered as someone else’s responsibility. When workers are encouraged to autonomously see problems as opportunities for improvement, as they are here, there is a free flowing systems improvement dialogue. Audits become exciting internal opportunities rather than external impositions of power, as contended by team member C:

... there’s regular audits ... so they audit the whole area and say, well okay, we need to improve here or there. And it’s not a stick to beat people up but it’s to say, oh, you know, we should really look at a home for this trolley because it keeps just being left out. And again it’s a good tool to constantly keep those improvements going.

A further implication of this comment is that, awareness and appreciation of work space runs to the core of good systems management (Sundstrom and Sundstrom, 1986). Occupational health and safety, ergonomic efficiency and, ultimately, production efficiency are the result as attention is paid to work area management. The next section further discusses team formation and maintenance processes as it was experienced by the two managers and the team.

Team formation and maintenance: the power of communication

Whilst quality, costs, and general system improvement are important and have been discussed in some detail through experiences of the two managers and team members, the authors believe that team formation and maintenance factors are of considerable relevance in high performance teamwork. It is through teamwork that quality, cost and systems improvements can best be made. The central role of communication on the team processes are discussed in this section. Team formation processes require ground rules for all members to avoid misunderstandings, unequal distribution of work, and potential conflict. For example, the fact that Team member A remembered the initial rule setting meeting so clearly indicates the value of articulation of ground rules:

In the very first meeting we had we came up with 10 rules, which is on one of those things there. And we just go by those. Just punctuality, respect, communication, being focussed, you know, just setting goals and striving for them and working together to get there.
Establishing early rules is imperative for establishing norms of behaviour. Using a value-based set of rules is less prescriptive and allows some flexibility for individual interpretations of the meaning of “respect”, “focus”, and other rules. Having rules also assists in resolving potential conflicts from individuals exercising different types of power, which may not necessarily have been bestowed on them. This had been a concern in the Plant managers mind and was reflected in his comments:

There's perceived power within a factory organisation. They mightn't have the title, but because they've been here there’s a perceived power that they have. And we were saying that it was an autonomous area and everyone has the same input. Everyone's opinion is valued. And everybody struggled with that.

It's a team without hierarchy, so it's an equal team. So we didn't have a team leader and a designated person that takes – everyone is an equal person in this team and therefore all the tasks were shared equally and therefore I think it is important to have a set of rules that everyone adheres ... it needs to be an open process where everyone is aware of the same rules.

The Plant managers' comments reiterate the unavoidable emergence of power and control issues in the team. Recognition by the manager of perceived power is an important first step in the effective management of issues of power and authority. Imbuing a sense of democracy and truly valuing the opinions of individuals is a necessary communication strategy. Within the concept of self-directed teams, the function of power hierarchy remains (Huusko, 2007). The Plant manager illustrated how a self-managed team can effectively revolve around a set of values rather than depend upon a specific leader. In this case, the function of a hierarchy is not necessarily removed, but instead replaced by the set of firm but fuzzy rules. The rules can then function to become a binding force that extends well beyond the immediate work team:

I think it's really important for the other shift that's not included in this to really get to understand it because they don't get – like, when we're having breaks or whatever some of the girls will ask me ... What are you doing in there? And I'll be able to tell them, you know ... we have to really make them feel included.

In the above quote the team member (C) expressed a broader view of the factory; a sense of systemic awareness whereby the connection between processes is perceived to be important. Central to the connection is open communication in the expectation that this will be accepted and not rebuked (Becker, 2007). The 803 team was functioning as a part of an even broader team and the sense of team culture developed by this small team expands to include awareness of the needs of workers not directly involved. When asked to reflect on the importance of culture, the HR manager recounted that:

To encourage this new culture within the place, it was very common to see the whole leadership team ... out there every week putting on overalls and getting down on their hands and knees and scrubbing these machines alongside the factory workers to show them that we're all part of the one group ... Still today if they've got meetings on or something
happens and we've got priority machines out there, it's not uncommon that we would get out there and jump on a machine so they could go and do what they have to do.

The culture of the team is defined as much by nature and type of communication as it is by member personalities. Within this mix is the function of leadership which, like the concept of hierarchy, is not a lost function but one that expresses through the egalitarian approach of the managers (Huusko, 2007). The mechanics of team functioning in this context are the acts of communication by words and symbolic actions of the managers. One can see a great example of “practice what you preach” in the actions of the Plant manager and his commitment to ensure two-way, open communication and resolution of conflict and removal of misunderstanding as reflected by the manager in his remarks below:

You know, we sit down and we discuss things. It's good. It's very healthy and we've got it to a stage where if I say something … (she's) … not happy with it, she'll say, no, I disagree. So we've actually got this really good environment that people will say, no, I don't agree with that. There would be nothing worse that if everything I said, they would all say yes, yes, yes.

The hidden role of conflict and the ability to embrace conflict as a way to fuel improvement in leadership and communication in the team is implied in these comments (Chuang et al., 2004). A leadership that is shared and can work together in bargaining for power in the workplace, but in a way that leaves the necessary space and authority for team members to communicate disagreement is a healthy leadership. Now the managers are careful about who enters the team. The balance of personalities is more important even than some technical skills. Team culture is elevated and depends upon careful management and capitalising on communication skills unique to certain personality types as emphasised by the HR manager:

And we've now got this culture and worked so hard on it that we don't want I's in here anymore, we want teams. And we have in the past employed someone who could be less proficient possibly over someone else, but they had more of this sense of team play and getting along with people and that.

There is an inherent confidence that comes from knowing that hard work has been put into some task; in this case, the task of team building. Benchmarking their team approach and outcomes with other organisations helped confirm that the processes used by the managers and team members were worthwhile. It also helped to build more team spirit to see how others were doing it. In addition, the team and managers alike started to see the problems as opportunities as outlined by the Plant manager:

The old sandwich effect: positive, negative, positive, okay? So I think we actually started building an environment that is not so much negative, it’s an opportunity.

Problems are, in fact, opportunities – this became the catchcry of the manager’s philosophy. A seemingly simple statement but it contained the perceptual and communicative difference between an average leadership and one that inspired and motivates team members to contribute towards high performance.
The high performance team: some new insights

Despite its challenges, teamwork can deliver bottom-line benefits to commercial organizations. Teamwork can improve quality and efficiency if clear communication and a sense of task urgency are present. The team also needs a balance of skills and clear rules of behaviour, which can be facilitated by team leaders being role models of expected behaviours. High performance is further assisted when there are staged objectives for early successes, continual input of facts and feedback, time spent team building together, and lots of feedback and recognition of successes (Katzenbach and Smith, 1993; Jackson and Carter, 2007). This case study provided the opportunity to observe team performance in a distinctive industrial setting. Prior to the interviews at the plant during 2005, approximately three years had elapsed since the initial closure threat. The managers and staff had already documented the earlier transformation of their plastics factory and their experiences in an in-house video production that they called, “The Power and the Passion”. The transformation began with gutting the entire plant, cleaning, painting, and evaluating every aspect of the operation. The physical aspects were not the only subject of radical make over. Human engagement at all levels of workplace hierarchy was also changed with policies developed for increased employee involvement, improved communication channels, and transparent managerial decision-making. The features of high performance teamwork are evident in this case inquiry but there are some qualifiers for each of the characteristics.

High standards for quality and efficiency are important, but the authors observed an additional emphasis upon acceptance of underperformance as a precondition to generate improvement and the motivation to make improvements to avoid, if not, delay the plant closure. This provided a grounding of established standards with a degree of realism. For example, the team spirit was not visibly dampened when a performance standard was not achieved. The team and its managers rallied around standards that were self generating and they had implemented systems that not only allowed short term flexibility in quality and efficiency standards, but allowed immediate feedback so that the continual improvement of performance and lifting of standards could continue unabated. The fact of teamwork, at times, appeared to obviate any sense of disappointment about lower than expected outcomes, plus the outcomes, rather healthily, served as an indicator of what was achievable next time.

Clear communication is essential for teamwork and the tacit understanding of a cohesive, high performing team is generally expected to be a superior mode of communication (as they move intuitively in synchronised formation), however, this plant relied heavily on explicit written and verbal instructions and signage. The team exhibited reasonable levels of implicit understanding through occasional displays of team spirit but were surrounded by graphic instructions and policies, due to the occupational health and safety imperatives of the industry, as well as the diligence of the primary team facilitator in documenting team procedures and training events to avoid misunderstandings and ensure plant survival. It may be reasonable for future research to question whether increased team cohesion and levels of implicit communication would significantly improve performance outcomes, especially where explicit forms of communication are present. This may be affected by institutional memory and efforts to manage turnover in the team membership.
A sense of urgency for task accomplishment may be relevant but this did not seem especially different in this case compared with other industrial organisations. The presence of time and productivity targets on their own are not an unusual feature and would be insufficient to add urgency. From the authors perspectives, in addition to the relatively recent memory of a closure threat, the decisions and behaviours of the team managers, who strongly encouraged autonomy in the team, did most to develop a self-generated sense of urgency. The managers as role models and controllers of budgets for improvement processes were referred to as the signposts about how urgent something would be. Ultimately, however, it was the team who came to consensus decisions about work priorities.

A balance of skills (technical and interpersonal) naturally seems important but this case revealed a special emphasis on personal attributes, especially the ability to work well as a team member. The managers were explicit that, even in hiring a new staff member, a significant weighting would be applied to personality criteria that may indicate good team skills. The technical skills were something that, while important, could be trained in someone, whereas, anti-team personality traits were seen as something that could rarely be changed.

Clear rules of behaviour set the boundaries for team conduct and the communication and authority structures and processes in this case certainly provided this clarity, which became probably the strongest correlation of all the high performance team characteristics noted by Katzenbach and Smith (1993). One significant question remains, however, regarding the source of the rules. The team was given some autonomy to generate their own set of rules, but the rules were taken largely as a template from another team rule model that the managers had imported from an off site training program. This template approach to generating rules may be helpful for clarity but there could be some doubt about the alignment of team members with a set of rules not strictly self generated, thus diminishing the sense of ownership over procedures and processes in the team.

Leaders as role models are undoubtedly iconic and this case showed strong evidence that the two leaders observed this principle. Even though the team was experienced and provided with plenty of latitude to complete their work, the sense of being observed by the leaders and the periodic, highly visible participation by managers designed to demonstrate expected behaviours, was notable. Other research has questioned whether the role of facilitator/leader, even in self-managed teams, may need to be more heavily weighted than most models of teamwork suggest (Wing, 2005; Creed and Swanson, 2007a).

Staged, clear, measurable and quantifiable objectives assist the work of the team, but this tends to imply steady progression toward an overall objective. Theory of punctuated equilibrium applied to teamwork suggests it is more common to see skewness in the intensity of teamwork applied in achieving many tasks (Gersick, 1991). Teams tend to leave the bulk of the work until the eleventh hour of a project. Sometimes, staging in the sense of establishing false deadlines, or requesting progress reports early in a project’s overall timeline can help to simulate a smoother work curve (Creed and Swanson, 2007a). This case study supports this view as the authors observed a rigid six week schedule for the team to investigate and report back at regular intervals on their progress. This was organized in the
broader context of usual shift work schedules, so the structured nature of their time aligned with a clear quality improvement task appeared to minimise the effect of punctuated equilibrium.

Continual feedback is helpful for quality improvement; however, this is similarly aligned with our observations about the staged objectives. There are times and places to provide feedback, so a more strategic approach is recommended. For example, to have regular meetings and other scheduled opportunities amongst the regular shifts for the team members to exchange information with the managers allows for thorough thinking and documentation around the feedback points. Nevertheless, providing constructive feedback and ensuring that the feedback is not aligned to a person rather a task should be practiced by all members.

Time spent team building together would appear to be relevant. There is, in fact, some evidence that time spent together inside or outside the workplace can sometimes contribute to strong cohesion around values that rail against achievement of organisational objectives (Hardy et al., 2005), although, not observed in this case. Recognition of successes is motivating for the team, although, in this case there was limited autonomy given to the team managers to manipulate financial rewards. A support system was established in the team and the wider plant to encourage personal development through public speaking and critical thinking exercises that were duly acknowledged and celebrated through award events and general congratulatory sentiments.

Conclusion and future research areas

The case revealed some key criteria that define a high performance work team in the context of a plastics factory. Analysis of the data suggested that quality improvement, efficiencies, and general systems improvement can be achieved through team collaboration. Teamwork can be facilitated through improved quality and efficiency standards, clear communication, a sense of task urgency, balance of skills, clear rules of behaviour, leaders' role modelling of expected behaviours, staged objectives for early successes, continual input of facts and feedback, time spent team building together, and lots of feedback and recognition of successes.

The passion that is needed to drive a team appeared to derive from the techniques of the managers, the disposition of the team members, the culture of the workplace, and the sense of cohesion that comes from confronting a threatening challenge. Change was a recurring theme in the case study and the pain of change, the loss of some key people, the emotion and struggle was implied, but there remained the strongest sense of optimism in the people at the plant. Perhaps, this positive undertone is the thing that most predicted the plant's success? The plant manager himself had an aphorism for defining a problem, “It's not a problem but an opportunity”. This appeared to establish a culture of achievement that permeated the staff and reflected in team performance.

Further research issues emerge about the acceptance of underperformance as a precondition to motivate improvement initiatives by the team, and the degree to which the levels of increased team cohesion and of implicit communication improve performance.
outcomes, especially where explicit forms of communication are present and sufficient. It is also observed that the decisions and behaviours of the team managers help to develop a self-generated sense of urgency in the team, and that the ability to work well as a team member is more important than having a balance of skills. In addition, a template approach to generating rules affects the personal identification of team members with a set of rules not strictly self generated. This adds complexity when it is understood that the visibility of team leaders in the team process significantly alters performance outcomes. Therefore, staged work outputs in a project’s overall timeline simulates a smoother work curve, and this improvement is facilitated by regular meetings and other scheduled opportunities to exchange information with the managers, which allows for thorough thinking and documentation around feedback points. Ultimately, personal development through public speaking and critical thinking exercises that are duly acknowledged and celebrated helps to develop individuals and teams.

As a post-script, documentary evidence from this case study led to development of a teaching and learning product, “They Practice What We Preach” a University award-winning project in response to national and institutional agendas relating to enhanced learning and employability (Creed and Swanson, 2007b). Many of the project interviews became multimedia resources illustrating real teamwork in an organisation. It is this dual outcome of theory insights plus vocational training value that has revealed the ubiquitous functions of teamwork and communication. The intersection of academia and high performance industrial teamwork is fertile ground for ongoing reflection in this field.

References


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