# High Performance Empowerment in the Comprehensive Approach: Swift Team Effectiveness and Maturity

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## *ABSTRACT*

*The changed nature of contemporary missions toward combined, joined, and comprehensive collectives has set new requirements for the formation of mission-specific military and military-civilian teams. Teams are often formed in an ad hoc fashion and must work together effectively despite rapidly changing team formations and increased time pressure. An ad hoc team training approach for swift team effectiveness and augmented maturity - STEAM - has been developed to address these challenges. STEAM is described as "pressure-cooker training" in which team members gain insight into their team and themselves as a team player, within one day. This fast track is possible because the training is custom-made for the team, is highly motivating, and addresses underlying drivers of behaviours. Prior to the training team members perform an online assessment from which the specific team characteristics of the team are mapped. In this way, trainers gain insight into the potential strengths and "bottlenecks" of the team, even before the training is started. Based on this insight, a trainer selects events and team roles that are relevant for the team that will specifically challenge the members of this team. STEAM is a game with a focus on experiencing one's own behaviour and that of teammates and then reflecting upon such behaviour. This makes STEAM a practical tool for mixed teams that have little time and need to perform at a high level. Preliminary feedback from applications of STEAM has supported the potential of the training.*

## 1.0 INTRODUCTION

## 1.1 COMPLEXITY OF MISSION-SPECIFIC CAPABILITIES

A globalising world not only has an effect on international trade and overseas political alliances, but also triggers a commonly felt responsibility for safety and security beyond national borders. For instance, since the early 1990s, Dutch troops have been involved in multiple ground operations all over the world, including the recent Afghanistan mission in Uruzgan and Kunduz but also in Chad, Iraq, Bosnia, Sudan, Congo and Liberia. They have also contributed to a number of humanitarian emergency operations such as the tsunami in Indonesia (2004) and the earthquakes in Pakistan (2005) and Haiti (2010) (Bertholee, 2008). Modern missions required specific combinations of expertise and capabilities, different from the homogenous structures in Cold War concepts. This development has resulted increasingly in combining specific capabilities from different units with diverse specialists who often have not worked with each other before.

Integrated mission preparation should be a requirement for building up ad hoc teams and units; however, in practice these operational teams and units are only complete in the operations area, due to late appointment to the team or unit (e.g., Ministry of Defence/MoD, 2004; 2007) or difficulty of joined preparation with international teams. A British brigade commander described the problem as follows: "In a situation I faced in Kuwait, I was in charge of more than 300 people from many nations who were literally thrown together. I had to form teams. I didn't know any of them; none of us really knew what we were going to do. I didn't know what level of training or particular talents any of them had; I didn't know what made them tick (...)" (Mills, Pascual, Blendell, & Verral, 1999).

## 1.2 COMPLEXITY OF THE COMPREHENSIVE APPROACH

In recent years even more complexity has been added to operations due to the fact that missions are not solely military in nature. It has been commonly agreed that military operations must be carried out as part of an approach involving all relevant actors in the area. These actors may be military coalition partners and non-military parties such as international government organisations, local authorities, national and international non-governmental organisations, civilian contractors, and local populations. This approach to operations is called the "Comprehensive Approach" as underlined by the Secretary General Rasmussen: "The comprehensive approach not only makes sense – it is necessary…" (NATO Summit Lisbon, 2010). Other terms with similar meaning that have been used are: Integrated Approach, Whole-of-Government Approach, and Defence, Diplomacy and Development (3D). Already during the 2006-2010 Afghanistan missions the presence of the Dutch Armed Forces was supplemented by civilian experts, including anthropologists, psychologists and diplomats. The staff of the Task Force Uruzgan (TFU) included political advisors and development co-operation experts. Leadership in the complex military configurations mentioned earlier and with intensified civil-military cooperation requires new competencies and skills (Leonard Polich, Peterson, Sortor, & Craig Moore, 2006; Nuciari, 2002; Van Meer & Essens, 2009).

The conclusion is that the changed nature of these more integrative missions has set new requirements for military operations and, as a result, for the formation of ad hoc mission-specific military and military-civilian teams.

## 1.3 CHALLENGES IN THE FORMATION OF AD HOC TEAMS

Ad hoc collaboration between persons, units or organisations with diverse backgrounds and interests has known difficulties (Bird, 2007; Devitt & Borodzicz, 2008; Rietdijk, 2008). For instance, when a defence organisation (an organisation that operates mainly at the executive level) has to collaborate with typical policy-oriented organisations such as (in the Dutch context) Foreign Affairs and Development Co-operation, there are large differences in organisational culture that are apparent through discrepancies in procedures, financial flows, operational readiness of fieldworkers and political viewpoints (Rietdijk, 2008). Likewise, at the international level collaboration is not always smooth, due to diverging national interests, cultural differences, and lack of a shared view on mission objectives (AIV, 2008; Bird, 2007; House of Commons, 2009). In other words, the different stakeholders involved, who each have their own views, working methods and interests, render the comprehensive approach an extremely dynamic and complex phenomenon. And this has its consequences for the ability of units and staffs at all levels in the organisation to learn to work together as a team.

Teams and coalitions are formed in an ad hoc manner; teams come into existence quickly to perform certain tasks and they often fall apart as soon as the tasks have been performed. This relatively short and intensive joint effort of an ad hoc team is further complicated by the lack of team members' knowledge of each others' backgrounds, interests, (organisational) culture, work methods, or terminology. In order to perform at high levels, with high stakes, team members need to find a way to quickly gain access to knowledge about the core capabilities of their team. This means finding out the most important strengths and weaknesses of their teammates, and thus, of their team. Getting to know each other well typically takes time. The discrepancy between the need for high performing teams on the one hand and their ad hoc nature on the other hand, therefore, causes great challenges for the training and preparation of these teams. There is typically not enough time to achieve the desired level of understanding among teammates in ad hoc teams. In these operational challenges, teams need to be supported in their development toward highly effective units in a short period of time. The scientific challenge is to find an effective procedure, well-founded on knowledge of interpersonal interaction and team dynamics, ideally applied during the mission preparation time, but also applicable in an operational context. For this purpose, we have researched the possibility of a "pressure-cooker training" that will allow ad hoc teams to achieve a high level of team performance in a short time period.

## 2.0 DEVELOPMENT OF AD HOC TEAM TRAINING

We developed a pressure-cooker training, called STEAM, based on theories of team competencies and of personality and behavioural preferences, to allow for the rapid development of team members' awareness of their own and others' team interactions. STEAM does this by allowing team members to quickly get to know the most essential team dynamics regarding themselves and their teammates, in a 5- to 8-hour intensive training. STEAM was developed on the basis of three principles: awareness of usually unconscious behavioural drivers (iceberg metaphor), the use of "serious gaming," and the notion of personally tailored training. First we will present a short overview of team competencies specifically relevant for ad hoc teams; then we will describe the STEAM approach in more detail. As the approach has been developed only recently, no factual data on effectiveness and retention is available. However, reviews from experienced professional team trainers during initial trials and feedback from an operational application with a mission team will be discussed. Future developments of STEAM and opportunities to further validate the training are discussed below.

## 2.1 CRITICAL AD HOC TEAM COMPETENCIES

Several studies have revealed that team performance is related to the knowledge, skills and attitudes (KSAs) of the people who are on the team (Cooke, Salas, Kiekel, Stout, Bowers, & Cannon-Bowers, 2003; Stevens & Campion, 1994). It has been suggested that these abilities do not guarantee team effectiveness, but simply enable the team to be effective. Especially in ad hoc teams, competencies of individual team members are expected to matter. Previous research has shown that 80% of the interviewed British military staff reported the engagement in core team behaviours as a "fundamental problem area in ad hoc teams" (Mills et al., 1999, p. 9). When the team members are required to perform as a team as quickly as possible, having core team work competencies is likely to speed up the development of effective team functioning. Earlier research has identified a specific set of teamwork competencies that enables the team to operate effectively (Mathieu, Maynard, Rapp, & Gilson, 2008). Based on a literature review, Salas, Rosen, Burke, and Goodwin (2009) presented the most recent list of KSAs of teamwork. They mention 30 competences of which 8 were selected by us for ad hoc team settings (see Table 1).

**Table 13 - 1: Ad hoc team competencies (Venrooij, 2009)**

| Team work component | Description | Examples |
|---|---|---|
| Team/ collective orientation | A preference for working with others and the tendency to enhance individual performance through the coordination, evaluation, and utilization of task inputs from other group members while performing group tasks. | -Team members accept input from other teammates; input is evaluated based on quality, not source.<br>-Team members have high levels of task involvement, information sharing, participatory goal setting, and strategizing.<br>-Team members value team goals over individual goals. |
| Mutual trust | The shared belief that team members will perform their roles and protect the interests of their teammates. | -Team members share a belief that team members will perform their tasks and roles.<br>-Team members share a belief that fellow team members will work to protect the interests of the team.<br>-Team members are willing to admit mistakes; they are not fearful of reprisal.<br>-Team members share information openly. |

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|---|---|---|
| Mutual performance monitoring | The ability of team members to keep track of fellow team members' work while carrying out their own to ensure that everything is running as expected. | -Team members recognize errors in their teammates' performance.<br>-Team members recognize superior performance in their teammates.<br>-Team members offer relevant information/resources before requested.<br>- Team members have an accurate understanding of their teammates' workload.<br>-Team members offer feedback to their fellow teammates to facilitate self-correction. |
| Adaptability | The ability to adjust strategies based on information gathered from the environment through the use of backup behaviour and reallocation of intra-team resources. Altering a course of action or team repertoire in response to changing conditions. | -Team members modify or replace routine performance strategies when characteristics of the environment and task change.<br>-Team members detect changes in the internal team and external environments.<br>-Team members make accurate assessments about underlying causes of environmental changes. |
| Backup behaviour | The ability to anticipate other team members' needs through accurate knowledge about their responsibilities. This includes the ability to shift workload among members to achieve balance during high periods of workload or pressure. | -Team members proactively step in to assist fellow team members when needed.<br>-Team members communicate the need for assistance.<br>-Team members can identify unbalanced workload distributions.<br>-Team members redistribute workload to underutilized team members. |
| Team leadership | Ability to direct and coordinate the activities of other team members, assess team performance, assign tasks, develop team knowledge, skills, and abilities, motivate team members, plan and organize, and establish a positive atmosphere. | -Team leaders instil shared affects and motivation and define team goals with pre-briefs.<br>-Team leaders promote team learning through two-way interactions in debriefs to generate lessons learned from performance episodes.<br>-Team leaders create team interdependencies.<br>-Team leaders communicate a clear mission and vision for the team.<br>-Team leaders gather and provide performance-relevant information to team members.<br>-Team leaders work to keep teams intact. |
| Closed loop communica-tion | A pattern of communication characterized by (1) a message being initiated by the sender, (2) the message being received, interpreted and acknowledged by the intended receiver, and (3) a follow-up by the sender ensuring that the message was received and appropriately interpreted. | -Team members follow up to ensure that messages are received and understood.<br>-Team member acknowledge messages when they are sent.<br>-Team members cross-check information with the sender to ensure that the message's meaning is understood.<br>-Team members seek information from all available resources.<br>-Team members provide 'big-picture' updates to one another as appropriate.<br>-Team members proactively pass information without being asked. |
| Shared mental models | An organized knowledge structure of the relationships among the task that the team is engaged in and how the team members will interact. | -Team members are able to recognize when other team members need information they have.<br>-Team members anticipate and predict the needs of their fellow team members.<br>-Team members implicitly adjust performance strategies to changing conditions in the team, task and environment as needed.<br>-Team members use standard terminology or phraseology. |

# 3.0 THE PRINCIPLES OF STEAM

## 3.1 THE ICEBERG METAPHOR

The iceberg metaphor, as suggested by Freud, is often used to illustrate that the behaviour that we see originates from a much larger body of motives and preferences as unconscious forces that lie hidden underneath the surface (see Figure 1). Visible behaviour in this model is thus quite literally the tip of the iceberg. The underlying foundation that "causes" this behaviour, such as personality and behavioural preferences, is not as easily perceptible. Our behaviour results from (social) interactions with our environment influenced by the foundation that lies beneath the surface. Needless to say, a lot is usually going on beneath the surface which makes the visible behaviour unpredictable or seemingly incongruous at times. For example, someone might be known as a stable and meticulous person and based on this demonstrated behaviour is put in charge of financial bookkeeping and the teams' spending decisions. Once on the job, however, under severe time pressure and under the influence of homesickness, this same person has become rigidly hesitant and indecisive, not being able to resolve the financial decisions he is faced with. Was this individual not the right person for the job? Could the team have prevented this dysfunctional behaviour shown by their teammate? Whatever the answer, this is why team members need to know more about what is going on underneath the surface than can be deducted from observing the "tip of the iceberg," especially when team members need to work together closely and perform at high levels.

The starting point of STEAM is the notion that to support ad hoc teams in becoming highly functional, it is important that they learn about themselves and their teammates in terms of what lies "under the surface." In current preparations for theatre, mission teams are mostly prompted to share information with each other with respect to procedures, rules, agreements, equipment and such ("taskwork"). This in itself is a challenge and it takes up a fair amount of time to make sure that all team members have the same situational understanding of the mission and the practical functioning of their team. However, the process of fine-tuning team members' practical knowledge of each other is not enough to guarantee good teamwork. Even the process of getting to know each other's working methods and procedures could be greatly enhanced if team members have an understanding of the basis of their teammates' behaviour. Effective taskwork depends on effective teamwork (Essens et al., 2005, 2010). For his reason, STEAM does not address the practical information that must be shared (i.e., what exists above the surface) but addresses the following two questions that relate to what lies below the surface:
Who am I as a team player? (Carey, 2007)

- What are the strengths and weaknesses in my personality?
    - What team behaviour do I usually demonstrate in normal circumstances, and under stress?
    - Which role do I prefer to have in a team?
    - Which team competencies (like communication skills or trust) do I master?
- What can I expect from my teammates?
    - What are the strengths and weaknesses in their personality?
    - What team behaviour do they usually demonstrate in normal circumstances, and under stress?
    - Which role do they prefer to have in a team?
    - Which team competencies (like communication skills or trust) do they master?

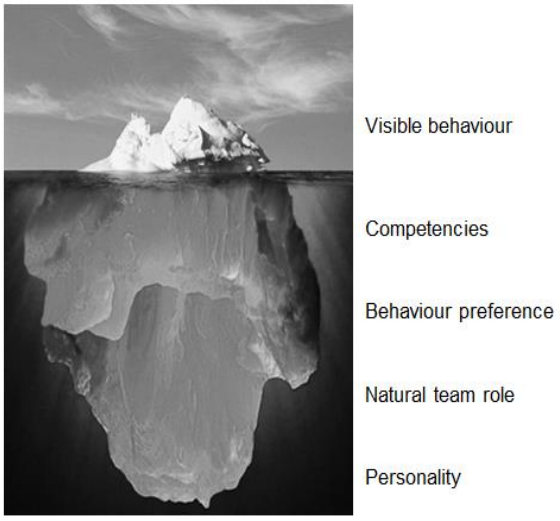


**Figure 1: Iceberg metaphor of observable and non-observable behaviours**

## 3.2 SERIOUS GAMING

The second principle of STEAM is the conviction of the effectiveness of using "play" as a training method. The notion of the importance of "serious gaming" has led the development of STEAM towards an immersive board game. Against the background of several studies on the effect of serious gaming (e.g., Hayes, 2005; Roman & Brown, 2008; Susi, Johannesson, & Backlund, 2007) and our own experiences with this training method (Korteling et al., 2011), several advantages of gaming for training purposes are identified:

### 3.2.1 Gaming triggers natural behaviour.

The trainee actively participates in a real-life setting in which s/he is prompted to exhibit skills and manners in order to solve problems, work together or hold conversations. This is advantageous for two reasons. Firstly, it is easier to reflect on actual events and demonstrated behaviour than it is to reflect on "what you think you might have said or done in a certain circumstance." When you are in the situation, your reaction is likely to come naturally. This makes the training less theoretical and more hands-on; you reflect on the behaviour you just demonstrated. Secondly, a game inhibits the potential tendency to present or frame your own behaviour in a socially desirable manner. In a conversation about your behaviour you might be able to downplay your dominant demeanour, for example, while in a real-life situation, this behaviour will be hard to conceal. It is also next to impossible to covertly lean back and refrain from participation. The advantages of gaming can be compared to the advantages of roleplay except that gaming allows for richer contextual immersion. Therefore, the training may be experienced as more realistic and natural. Furthermore, gaming does not require hired actors or pre-written scripts, which saves on overhead considerately. Every participant in the game is actively developing an improved sense of the team dynamics, of themselves and of the group.

### 3.2.2 A game has the option to be metaphorical.

This means that the training-setting is not a direct representation of the actual workplace, but instead allows for the experiencing of the same team dynamics in a simulated environment. The metaphorical nature of a game is important because it creates a safe environment. Because the scenario is fictive, it is likely that the trainees feel more open to discuss weaknesses or a clash in characters without feeling like they are failing or lacking in the specific operations of their current or future job. This should make it easier to participate with an open mind and to show one's "true colours." Of course, the events in the game that trigger team dynamic behaviour are indirectly very relevant for the current or future task that the team will perform together. Often, during moments of reflection in the game, trainees make the translation to their behaviour in the workplace themselves.

### 3.2.3 We learn through experience.

By doing, we learn faster, remember more, and can apply our knowledge to new areas better when we experience it ourselves (Dewey, 1916). In STEAM, the purpose is to really experience the team dynamics and reflect on what has been experienced. Furthermore, gaming is fun! To devote a full day towards getting to know each other can be experienced as wearisome and tedious. However, playing an interactive, challenging and enjoyable game for a day does not tire most people at all! This means that the attention span of the trainees can be kept high for the duration of the training. This, in turn, leads to higher efficiency in both capturing and retaining the valuable information about the team dynamics during training.

## 4.0 TAILORED TRAINING WITH THE STEAM ASSESSMENT

The last principle of STEAM is the importance of personally tailored training. The content of STEAM is always custom made. Especially when time is an issue, it is of great consequence that the content that is offered is relevant and significant to the trainee. In STEAM, the goal is to constantly challenge individual team members to learn about themselves or their team members, non-stop, for the entire duration of the game. This is only possible if the content of the training can be adjusted to the specific needs of every team and every individual team member in the team. To achieve this, an assessment has been developed for STEAM that is offered to all team members before the training.

The assessment generates individual profiles for the team members, including personality traits, team role preference, behavioural styles, and critical team work competencies. All of the used scales are validated. In addition to the individual profiles, a team profile is constructed from the assessments. The team profile provides insight into the psychological make-up of the team and gives the trainer and the team members an overall perspective on the potential strengths and weaknesses of the team and of its individual members. Challenges that may arise within the team, for example, due to a clash in preferred behavioural styles, can quickly be identified. The trainer uses the team profile as a starting point to select appropriate "events" to insert into the game. In this way the trainer can trigger behavioural styles, prompt potential clashes between characters, and exemplify "bottlenecks" in team trust and communication.

The assessment consists of four tests that provide insight into aspects that are at play"under the surface of the iceberg:" personality, team role preference, behaviour preference, and critical team competencies.

## 4.1 PERSONALITY

The relationship between personality and team performance has been widely investigated (Barrick, Mount, & Judge, 2001; Barrick, Steward, Neubert, & Mount, 1998; Barry & Steward, 1997; Driskell, Goodwin, Salas, & O'Shea 2006; Judge & Bono, 2000). The Big Five personality taxonomy is often used to express personality. This taxonomy organizes the multitude of personality traits into five factors: Conscientiousness, Extraversion, Agreeableness, Neuroticism and Openness to experience (Digman, 1990; Pervin, 2003). Each personality trait predisposes someone to behave in a particular way (Peeters, 2006). The Big Five is often used to express personality because it is considered as the most accepted taxonomy in the scientific community (Barrick & Mount, 2005).

## 4.2 TEAM ROLE PREFERENCE

In order to make a team effective, nine key roles should be fulfilled (Robbins & Judge, 2007). By taking personal preferences into account, it will be more likely that team members will work well together. Role preference is therefore also taken into account for ad hoc team effectiveness and measured with the Belbin test (Belbin, 1981). This test identifies eight different team roles that may be categorized in three types (action-oriented roles, person-oriented roles and mental roles). Included in the action-oriented roles are the shaper, the implementer and the completer finisher. The shaper is extraverted and motivated, realizes the working methods and goals of the team and motivates the team to reach goals. The implementer is no leader, but rather is practical, focused on implementation, and translates ideas into possibilities. The completer finisher keeps an eye on deadlines, goals and details, has a critical view on mistakes and omissions, and motivates others to undertake action when necessary. Included in the person-oriented roles are the team worker, the coordinator, and the resource investigator. The team worker is focused in team integration and cohesion, prevents tensions and conflicts, supports team members, and is supportive and considerate towards team members. The team worker also makes sure that passive team members participate in the task. The coordinator is a leader, and coordinates, formulates goals, keeps track of role distribution and plays a leading role in decision making. The coordinator has no particular interest or opinion related to the task. The resource investigator is extraverted and social, a negotiator and networker, and can be considered a link between the team and the rest of the world. The resource investigator brings external ideas into the team. Included in the mental roles are the plant and the monitor evaluator. The plant is a person full of ideas, an innovator and refresher, creative and inspiring, introverted and intellectually dominant. The monitor evaluator is analytical and critical, a good and deep thinker, and careful. The monitor evaluator always looks for pitfalls (Langelaan, Essens, & Keeris, 2008, p.26).

## 4.3 BEHAVIOUR PREFERENCE

How team members behave, both under neutral and under stressful circumstances, has a great effect on team dynamics. Insight in teammates' behaviour preferences and behaviour patterns is of great relevance to the ability of a team to work together smoothly and successfully. In order to gain insight into behaviour patterns, STEAM uses DISC (see below) behaviour styles (Bonnstetter, Suiter, & Widrick, 2001). Behaviour is defined as the way in which individuals present themselves and the way in which they handle tasks and challenges. The DISC assessment does not speak in terms of good or bad behaviour; if anything, behaviour can be effective or ineffective in a certain situation. The outcomes of DISC are meant to give insight into behavioural styles, what to expect, what not to expect, and in which circumstances these styles are more effective or less effective. DISC defines behaviour as a combination of four main styles: the dominant style, the influencing style, the stability style, and the conformity style (Carey, 2007). It is often seen (though not always) that individuals have a preference for one or two of these styles. Almost everyone has a bit of every style in their repertoire. Specific combinations between these four behavioural styles in a team are expected to increase effectiveness (Furlow, 2000).

The company that exclusively provides this assessment, MDI[1], has developed a special assessment report for STEAM with a focus on the relevance of personal behaviour for teamwork. This includes a specific chapter on how one's behavioural style can interact with other (contradictory) behavioural styles within a team, and gives a manual on which approaches work best when working with different styles, as well as how other teammates might best approach you.

## 4.4 CRITICAL AD HOC TEAM COMPETENCIES

Based on the eight critical ad hoc team competencies (see Table 1), a questionnaire was developed to assess the prevalence of these ad hoc team competencies in team members. The Critical Teamwork Competence Questionnaire (CTCQ) has been validated (Venrooij, 2009) and is now used in STEAM.

# 5.0 HOW STEAM WORKS

STEAM combines a pre-game assessment with an immersive board game and recurrent in-depth reflection throughout the training. A typical training procedure would include the following steps:

## 5.1 PREPARATIONS BEFORE THE TRAINING

The members of the team are emailed the request to fill in an online questionnaire (the STEAM assessment). Once the results from all the trainees have been received by the trainer, the trainer can start to put together the individual and team profiles. The profiles are the basis from which the content of the STEAM training is composed. The trainer matches individual profiles to the various roles in the game in such a way that the team member is challenged in tasks that are not likely to suit them and will be comfortable in tasks that are likely to be a core strength. Also, the events in the game can be custom-fitted so that certain team members need to work together on a task. Again, the objective is to select events for team members who, based on their profile, are likely to experience a good match or a potential clash in personality, behaviour style or team role.

[1] See www.MDI.nl.

## 5.2 PLAYING THE GAME

Once the team members have been assigned roles and the events have been selected accordingly, the training can begin. Team members are first introduced to the setting and the rules of the game. They are explained the objective of the game: to rebuild Geyser Island (see Box).

The team then begins to play. The trainer introduces a multitude of events per round. The events trigger all sorts of interactions and the team is quickly immersed in the conflict between their personal interests and the interests of the island. To add pressure, a few stressors are included in the game. Firstly, the team is put under serious time pressure. They have a limited amount of time to resolve the issues per round. Secondly, there is a visible and tangible sense of hierarchy built in. The president and ministers have more privileges than others (more comfortable chairs, a private room in which they can convene, nicer snacks and drinks). If you play the game well, you can get promoted and also enjoy these privileges. Being demoted obviously means that the privileges are taken away.

*The background of the game:*

*Geyser Island has been destroyed in a war and needs to be rebuilt.*
*There are 5 regions in Geyser Island, each with a specialty produce from that region (e.g., the region Hortus produces farm products, the region Sanidad produces medicines). Every region has a region manager.*

*The game allows for 5 ministries, each responsible for one specific development area for the entire island (e.g., a ministry of Agriculture and a ministry of Health). There is also a president and an optional vice-president. They are in charge of the entire development of Geyser Island and must see to it that the region managers and ministers work together.*

The trainer observes and after each round asks the team members to gather and reflect on what just happened. The trainer asks them about behaviour they noted and how it was experienced. After two rounds, the trainer may show the team their personal and team profiles from their assessments. The profile is used to interpret behaviour that has been experienced and it also gives team members a commonly shared "language" in which they can reflect on each other's behaviour.

The idea of STEAM is not to intervene in the team processes or the team behaviour of the team members, but to make the potential strengths and weaknesses of the team explicit. The trainer does not gear towards changing certain aspects of behaviour in individuals or a team, but merely mirrors the effect of the team's combined behaviour and lets team members reflect on the implications for their future teamwork.

## 6.0 THE VALUE OF STEAM

With STEAM, team members gain in-depth understanding of their own and other team members' strengths and weaknesses, competencies, and behavioural styles. This understanding lies at the basis of a smooth and effective high performing team. The advantage of the pressure-cooker STEAM is that this basis is laid in a very short time. Team members know what they need to know about each other to be effective, no more and no less. This is possible because of the adaptive nature of STEAM. The game can cater towards the exact issues that are relevant for a specific team, without having to devote any time to general events that are not the most relevant for the team to experience.

The following advantages are expected from STEAM:

- Increase team ability to quickly develop towards the functioning of a well-oiled machine.
    - During the training itself we expect a quicker development and deeper insights of the team members because of the tailor-made events and roles.

    - Potential strengths and bottlenecks of the team are identified before the team has even started the training and the events in the game are selected to make these strengths and bottlenecks explicit and reflected upon. This means that the team has a kick-start in their early "forming" and "storming" process (Tuckman & Jensen, 1977).
- Insight into team dynamics for team members.
    - Trainees gain insight into the behaviour of teammates, team dynamics in general, and how they themselves can deal with such behaviour and dynamics.
    - The outcomes of the STEAM assessment are captured in a report. Each team member receives their own report with information about their strengths and weaknesses, preferences, and "allergies" as a team player.
- Insight for team members has a long-term effect.
    - The insights that team members gain into themselves and into team dynamics in general will contribute towards more effective behaviour in future teams.
- Save time.
    - Because the entire STEAM training fits in one day (5 to 8 hours), the team members need not be pulled away from their other responsibilities for very long. The logistics of getting the team together for one day has proven to be manageable.
    - The individual and team profiles provide the team with a tool and a language to continue their reflection on themselves and each other. This will help their further development as a team even after the training, without it costing extra training time.

STEAM has broad application for teams in various settings. A large Dutch training bureau is commercially using the method for management teams; the Group Teambuilding of the Netherlands Marine Corps has used STEAM to train its staff (consisting of Marines, Military Police, and governmental civilian advisors) before its mission in Kunduz, Afghanistan in April 2012. The first experiences with using STEAM as a training method with trial teams and the Marines operational team were very positive as reported by both trainers and trainees. Trainees gave feedback that they felt fully engaged from beginning to end of the training day. The personal profile and the team profile were seen as a highlight for the trainees as many felt that it gave them profound insight into their own behaviour and that of others. The professional trainers mentioned that they see that trainees learn much faster using STEAM compared to their extensive experience with other methods (with an estimated saving of at least one day). In other, traditional team training settings, a trainer will have to see what comes out of an event and then in retrospect find out if the time spent on the event was fruitful for the (usually not all) trainees. With STEAM the events are directly catered towards what is a relevant experience for trainees. Further measurement is underway related to the Marines operational team to evaluate how team performance developed during their mission.

A point to note here is that the time that the team saves with faster coming to maturity is partly time that the trainer has to invest beforehand. The trainer will have to spend relatively more preparation time in order to prepare the events of the game to suit that specific team. So when it is said that STEAM saves time, this is certainly true for the team that is being trained.

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