How can teambuilding make professional teams in the construction industry more efficient?

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Submitted in fulfillment of part of the requirements for the Degree
of BSc. Quantity Surveying (Honours)
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October 2009

University of Pretoria

Student Declaration

I, the undersigned, hereby confirm that the attached treatise is my own work and that any sources are adequately acknowledged in the text and listed in the bibliography.

Signature of acceptance and confirmation by student

Abstract

Title of Treatise:

How can teambuilding make professional teams in the construction industry more efficient?

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The construction industry 'arena' requires 'teamwork' for efficient execution. The ability to work together results in successful projects and satisfies the three major constraints imposed by clients in the construction industry; namely time, quality and budget.

The most time-consuming aspect of a construction project is settling disputes within the professional team. The treatise investigates the 'steps' mandatory for 'common ground' to minimise, manage and resolve disagreements.

The thesis looks to provide possible solutions by exploring the teambuilding and communication skills necessary to forge project role players into a 'team' – a 'team' with common goals and agreement on processes and dispute management.

ACKNOWLEDGEMENTS

Chapter 1: Overview of the Research Study

1.1. Introduction

*"A **team** comprises a group of people or animals linked in a common purpose. Teams are especially appropriate for conducting tasks that are high in complexity and have many interdependent subtasks. Teams normally have members with complementary skills and generate synergy through a coordinated effort which allows each member to maximise his or her strengths and minimise his or her weaknesses."* (Wikipedia, 2009)

The construction industry is an arena where 'teamwork' needs efficient execution. The ability to work together determines successful projects and provides capability to satisfy the three major constraints imposed by clients in the construction industry- namely time, quality and budget.

Many types of teams participate in a construction project; employing several disciplines and the focus of the research project is on this team of professionals.

Bringing individuals together in a group who are, perhaps, unfamiliar with one another has the potential to give rise to endless disputes and bickering (that can become very personal) and ultimately have a harmful and negative financial impact on the outcome of the project. Anticipating detrimental consequences before the project begins facilitates setting procedures in place to counteract negativity.

The key to forming a successful team lies in identifying a facilitator to help the team through highs and lows; in the construction industry, the **principal agent** is the project-facilitating leader. The facilitating leader is responsible for facilitating group effectiveness and cohesion, as well as forming of strong relationships between the members of the professional team.

Conventional teams are set up within organisations themselves. The professional team is unique in that different companies send representatives, forming the 'team'. It comprises individuals and experts in different disciplines, from different entities.

Project team members (Consultants) have different working principles and habits engrained in them by their respective companies. The team leader needs to co ordinate and accentuate the importance and value of a sturdy, unrelenting team effort. People are, inherently, 'set in their ways', so the leader must provide inspiration and highlight the opportunities presented by successful projects; namely furthering careers and developing good relations for future business.

The 'support system' (essential on projects) is an underestimated tool – "it is the driving factor to actualisation." (Goldman,2009). It is essential that all project team members 'buy-in' to the project as a single, unwavering structure to ensure benefits for all.

The facilitating leader (principal agent) ought to provide an opportunity to the consultants to generate a clear directive and identify a common goal to strive towards, whilst at the same time emphasising the fact that this goal is unattainable without everybody giving their best. A clear 'value standard' at the beginning of the project encompasses safety, integrity, excellence in the work place, focus on the client and winning respective employees over to the set goals. The entire 'team' must 'buy into' these values, thereby enabling a platform for successful communication among the key players on the project.

Ultimately, the responsibility shared by all members. The Principal Agent recognises that a successful project depends very strongly on interpersonal relationships within the professional team. Their willingness to support each

other merges with an understanding that working towards a common goal achieves the desired result.

To achieve cohesion, the principal agent should investigate 'teambuilding tools'. The financial investment is not daunting and numerous independent research studies show measurable short and long-term benefits.

Dr Chris Heunis, of the Team Building Institute in Pretoria, South Africa, brings years of experience to running courses with varied programmes.

The Institute integrates the "Herrmann Brain Dominance Instrument" (HBDI®) and Adventurous Experiential Learning (AEL) in programmes alternately designed to spark interest, motivate, promote fun and participation but also to provide learning opportunities to 'change' and unify teams.

The HBDI® model explains thinking preferences in two distinct situations; differentiating behaviour in a 'normal' or 'stressed' state of mind. AEL activities follow the HBDI assessment, highlighting the importance of basic teamwork methodology (good communication, strong leadership etc.) Further-more it emphases the logic behind teambuilding and allowing individuals to muster understanding of their own (and peers) thinking styles - enabling their 'team fit'. "An AEL **programme** incorporates the deliberate use of adventure experiences facilitated experiential learning to bring about lasting changes in intra-personal (individual learning) and interpersonal (interaction with others) relationships". (Heunis, 2009)

Personality traits potentially vary significantly from person to person and it is critical for each team player to know their 'role' and feel a 'sense of belonging'; enabling the team to harness knowledge, identify as a unit and implement the most effective solution. Furthermore, an important facet of

'teamwork' is the increased levels of trust and respect that the group develops.

Built into teambuilding activities is rigorous communication skills development. Communication is a hugely important and governs the success of any team. Teambuilding activities provide the 'team' with a relaxed and comfortable operating environment, empowering people (including the reclusive), to have the confidence to state an opinion and share in decisions.

Communication requires skill - tone and body language are most often the cause behind unnecessary disputes. Team building creates awareness and stresses the importance of avoiding ambiguity and, most importantly, offensiveness. Human nature takes offense when someone is domineering; the combination of communicating properly and understanding another's logic and way of thinking shifts the focus onto more of intention instead of behaviour.

With clear, concise, and consistent communication processes, along with effective facilitation from the Principal Agent, a reduction in construction time and costs is possible. Nearly all mishaps on construction projects arise from poor coordination between parties- essentially due to a lack of communication. Each major player/consultant on the project requires representation in an equal capacity and involvement in decision-making. In order for people to shape an effective team, it is pertinent that they feel valued and respected. Team building assists in laying a foundation to achieve these goals.

The most time-consuming aspect of a construction project is settling disputes within the professional team. Once someone feels mistreated, it is a natural reaction to retaliate with 'revenge' over the other (i.e. by delaying information or 'backstabbing').

What steps are necessary to minimise, manage and resolve disagreements and how can consultants find 'common ground'?

The treatise looks to provide possible solutions by exploring teambuilding and the communication skills needed to forge role players on a project into a ' team' – a 'team' having common goals and agreement on how processes and disputes are managed.

1.2. Statement of Main Problem

How can teambuilding make professional teams in the construction industry more efficient?

1.3. Statement of Sub-problems and Hypothesis

1.3.1.   Can the "Herrmann Brain Dominance Instrument" (HBDI®) help team members to appreciate diverse thinking styles, thought and logic processes?

1.3.1.1.   (Yes, the Herrmann Brain Dominance Instrument is a system used to measure and describe thinking preferences in people.)

1.3.2.   Can Adventurous Experiential Learning (AEL), as a tool, build strong relationships within the team?

1.3.2.1.   (Team building techniques, such as 'the high ropes', create circumstances under which the professional team is obligated to cooperate with one another and strive toward a common goal. This goal not achieved without the entire team's co-operation. Trust and respect binds strong relationships.)

1.3.3.   Is a typical project team inherently compatible? If not, is compatibility achievable?

1.3.3.1.   (A typical project team is not inherently compatible as each member, employed by different organisations, presents differing work ethics. The situation requires 'team' alignment using effective teambuilding facilitation and implementation.)

1.3.4.   Can effective communication maximise efficiency and minimise dispute amongst the team?

1.3.4.1.   (Yes, sound communication skills result in team effectiveness.)

1.3.5.   Does leadership determine the measure of success of the professional team?

1.3.5.1.   (Expert leadership facilitates effective coordination between members of the team, building trust and creating a dynamic working environment. Leadership excellence is the difference between a successful and unsuccessful team.)

1.4 Limitations

The research study is limited to the application of teambuilding within a 'typical' project team in the construction industry- this terrain being relatively unexplored. Time constraints and the availability of consultants, prevented conducting a study of more and diverse professional teams. In most construction projects time is of the essence; team-building interventions would ideally, occur in the 'estimating phase' of the project. Clients are unlikely to postpone progress on the project for a team building initiative.

A confidential case study analyses a complete teambuilding process and a questionnaire investigates feedback after the session.

Further limitations are associated with the fact that the consultants profiled have worked together for some time; this means that relationships and perceptions of one another are already forged- although it may pose more of a challenge to alter ingrained attitudes as opposed to consultants brought together as a 'fresh group' with little knowledge of each other.

Project teams in the construction industry work on more than one job at a time; it is as 'tricky' to get full commitment; persuasion as to the long-term benefits of 'team building' is necessary.

Questionnaire responses are anonymous to encourage truthful answers.

1.5 Definition of Terms

HBDI® – "Herrmann Brain Dominance Instrument"

AEL – "Adventurous Experiential Learning"

Team – "A **team** comprises a group of people or animals linked in a common purpose." (Wikipedia, 2009)

Professional Team - A team is made up of **professional consultants** from a number of different companies, each with their own area of expertise,- all relying on each other to produce timely information and cooperation in order that they may carry out their duties to bring a project to fruition.

Professional Consultants – Architect, Landscape Architect, Mechanical Engineer, Electrical Engineer, Civil Engineer, Structural Engineer, Quantity Surveyor,

Geotechnical Specialists, Environmental Developers, Land surveyor, Town Planner and Managing Agent.

Teambuilding - aspires to create a 'genuine' environment of trust and support, inclusion and caring that embraces diversity in terms of gender and race. It fosters a culture of ownership and accountability where shared learning and success is celebrated.

Assumption - /n take to be true

Electroencephalography - (EEG) is the recording of electrical activity along the scalp produced by the firing of neurons within the brain. EEG refers to the recording of the brain's spontaneous electrical activity over a short time, usually 20–40 minutes, as recorded from multiple electrodes placed on the scalp. (Wikipedia, 2009)

Positron emission tomography - (PET) is a nuclear imaging technique producing a three-dimensional image or picture of functional processes in the body. The system detects pairs of gamma rays emitted indirectly by a positron-emitting radionuclide (tracer); introduced into the body on a biologically active molecule. Images of tracer concentration in 3-dimensional space within the body are then, rebuilt by computer analysis. In modern scanners, this reconstruction is often, accomplished with the aid of a CT X-Ray scan performed on the patient during the same session, in the same machine. (Wikipedia, 2009)

Magnetic Resonance Imaging - (MRI), or nuclear magnetic resonance imaging (NMRI) is primarily a medical imaging technique most commonly used in radiology to visualise the internal structure and function of the body. MRI provides much greater contrast between the different soft tissues of the body than computed topography (CT) does, making it especially useful in neurological (brain), muscoskeletal, cardiovascular and oncological (cancer) imaging. Unlike

CT, it uses no ionising radiation but uses a powerful magnetic field to align the nuclear magnetisation of (usually) hydrogen atoms in water in the body. Radio Frequency (RF) fields systematically alter the alignment of this magnetisation, causing the hydrogen nuclei to produce a rotating magnetic field detectable by the scanner. Additional magnetic fields might manipulate the signal to build up enough information to construct an image of the body. (Wikipedia, 2009)

Metaphor - from Latin 'metaphoria'; is language directly connecting a, seemingly, unrelated subject. A figure of speech that connects two or more things it, more generally, describes a first subject as being equal to a second object in some way. (Wikipedia, 2009)

Kinesthetic learning -is a teaching and learning style where learning occurs by students actually carrying out a physical activity, rather than listening to a lecture or merely watching a demonstration, (i.e. learns from doing or being part of). Some people are visual, some kinesthetic and some are auditory learners. (Wikipedia, 2009)

Holistic - is a philosophy that views physical, mental and spiritual aspects of life as closely interconnected and equally important in approaches to treatment. (Internet: Wikipedia, 2009).

1.6 Assumptions

The application of this study confines the 'building construction' project environment. The questionnaire targets project 'team players' and feedback determines if the hypothesis that 'team' skills are lacking in the construction industry is true.

The communication apparent in a 'normal team' in the construction industry is used as a basis for comparison - showing that, whilst 'processes' within companies may differ the human dynamics remain the same.

The key assumptions of this study are:

1. Existing team building models are applicable to project teams working in the construction industry.
2. Human factors influence a project's economic parameters negatively and positively.
3. Leadership style influences the response of a team and all parties need a cohesive approach to the project environment.

The validity of this research is uncompromised because of the impartiality of the researcher and the questionnaire provides objective, empirically viable data.

1.7 Importance of the Study

Teambuilding is widely practiced within the larger assemblage, however within the construction industry there is an assumption that consultants 'automatically' cooperate to produce a high standard of work- but the dynamics of cooperating 'efficiently' are unexplored.

The study attempts to show there is high potential for conflict in projects harnessing a variety of professionals- all operating in a dynamic environment. However, by providing a 'team building' programme to identify concerns and pinpoint potential problems; it should be possible to minimise costly disputes. (The industry often 'apologises' that certain financial losses are acceptable because "the quantity surveyors budget covers the loss"; most mishaps are avoidable)

The study is important because it will show that team building not only improves economic considerations but also enhances the work environment and improves co-operation and understanding between co-workers.

1.8 Research Methodology

Investigations include – meetings and interviews with Dr. Chris Heunis, of the Team Building Institute, Pretoria: the completion of the HBDI® questionnaire: shadowing instructors at the Team Building Institute during a team-building course with a project team and analysis of the profile of an anonymous 'project' team. The questionnaire analysis presents response from the project team after the session providing proof for the hypothesis.

The comprehensive viewpoint clarifies, firstly, how effective team activities are in building spirit, strengthening relationships and bonds, and secondly, gives insight into how different people think and react during the activities in relation to the guidelines of the HBDI® questionnaire outline.

Completing the course at the Team Building Institute clearly identifies the correct and specific hypothesis to the thesis main and sub problems, and results in a more focused research field to validate the hypothesis.

The questionnaire, compiled in conjunction with Dr Chris Heunis and staff members at TBI, asks relevant, diverse 'team members' to provide information to identify potential 'clashes' in the professional team and to discuss solutions from a 'team building' perspective.

The treatise is referenced through a series of project and communication management textbooks, theses (and interviews) provided by Dr Chris Heunis of the Team Building Institute and websites pertaining to project management with the emphasis on professional and competent leadership skills.

Chapter 2

Sub-problem 1

Can the "Herrmann Brain Dominance Instrument" (HBDI®) help team members to appreciate diverse personality, thought and logic processes?

'By understanding and valuing yourself you can learn to understand and value others.' (Herrmann, 2003)

2.1. Introduction

The Hermann Brain Dominance Instrument (HBDI®), developed by William 'Ned' Herman, celebrated physicist, in 1979 is an educational tool used in business to recognise and embrace employees with different 'thinking' styles.

The cognitive measurement model, akin to the Myers-Briggs type indicator assessment (Briggs, Briggs, 1962), is a psychometric questionnaire designed to measure psychological preferences in how people perceive the world and make decisions. The Myers-Briggs indicator (MBTI), extrapolated from Carl Jung theories, used "...typological theories to identify wartime jobs for woman to engender a comfortable and effective working environment. Myers Briggs focuses on normal populations and emphasises the value of naturally occurring differences." (Wikipedia, 2009)

HBDI® uses research into left-right brain laterilisation (Sperry et al: 1975), showing the dual specialisation of the brain. Researchers observed patients with brain hemispheres separated by a procedure to sever the Corpus callosum in order to cure epilepsy.

Sperry et al (1975) made a multitude of discoveries. For example," the left side of the brain, which controlled the right side, appeared to have the function of logical, analytical, sequential and rational thinking. Conversely, the right hemisphere tended to perceive the world and other people in a global mode: instantaneous, intuitive, visual, synthesising, emotion and expressive. It finds solutions through sudden and spontaneous intuition, leaving it to the left hemisphere, the job of proving them in logical, analytical, and scientific manner.

Laboratory tests on healthy patients and patients with lesions, in one or the other hemisphere, demonstrates that the left hemisphere breaks everything down into different elements- the right hemisphere considers the global whole and searches systematically for connections, analogies and similarities.

For example, a victim of damage to the right hemisphere might not recognise people or streets in their hometown whilst someone with damage to the left hemisphere would be unable to express elements such as word and sentence intonation and would need to regain language ability." (Internet: Wikipedia, 2009)

Research into the limbic system (a dual structure buried deep in the brain) showed the principal location for emotion and memory that directly affects inter-personal processes. (Herrmann, 2009)

The HBDI® questionnaire analyses answers to 120-questions. The model determines four thinking styles and identifies dominant thinking preferences whilst acknowledging that people use all four thinking styles to varying degrees. (Wikipedia, 2009)

2.2. HBDI® Methodology

Brain laterilisation theory associates each of the four thinking styles with a locus in the human brain and the underlying bases align **analytica**l and **sequential** styles with the left-brain and **interpersonal** and **imaginative** styles with the right brain. The styles of thinking are summarised in HBDI® literature as follows:

- **Analytical thinking**

  Key words: logical, factual, critical, technical and quantitative.
  Preferred activities: collecting data, analysis, understanding how things work, judging ideas based on facts, criteria and logical reasoning.

- **Sequential thinking**

  Key words: safekeeping, structured, organised, complexity or detailed, planned.
  Preferred activities: following directions, detail oriented work, 'step-by-step' problem solving, organisation and implementation.

- **Interpersonal thinking**

  Key words: kinesthetic, emotional, spiritual, sensory and feeling.

  Preferred activities: listening to and expressing ideas, looking for personal meaning, sensory input and group interaction.

  Students associated with a 'kinesthetic learning style' are natural discovery learners; they have 'realisations' through doing, as opposed to having 'thought first' before initiating action. Kinesthetic learners (about 15% of the population) struggle to absorb by reading/ listening to things. People mistake themselves for kinesthetic/ tactile learners because they do not access the full variety of learning options, meaning they cannot find their right 'learning state'. The kinesthetic learner usually succeeds at

chemistry experiments, sporting activities, and acting and may listen to music while learning or studying. (Wikipedia, 2009)

Commonly kinesthetic learners focus on two different things at the same time- remembering 'things' by 'going back in their minds' to what their body was doing. They also have very high hand-eye co-ordination and very quick receptors and use phrases such as 'I can see myself doing that' and 'it's starting to come alive.' (Wikipedia, 2009)

- **D. Imaginative thinking**

  Key words: Visual, holistic, intuitive, innovative, and conceptual

  Preferred activities: looking at the big picture, taking initiative, challenging assumptions, visuals, metaphoric thinking, creative problem solving, long term thinking.

2.3. Critique

The human brain is one of the wonders of the world, weighing about 1.4kg and containing 12 trillion neurons –each connecting with 100,00 adjoining neurons – and capable of combinations running from one - followed by 10.5 million miles of zeros.

The last twenty years exposed the brain to **electroencephalography, positron emission tomography** and **magnetic resonance imaging** making it possible to effectively analyse the brain and determine the inner workings. (Wikipedia, 2009).

HBDI® developed this research to promote awareness of thinking preferences in order to reach personal and professional potential.

The model has garnered censure from brain researchers. The notion of hemisphere dominance attracted criticism from the neuroscience community,

notably by Terence Hines (2003) who called it," 'pop psychology' and 'mythology' based on unpublished and questionable data".

"Current literature," he said," instead found that both hemispheres are always involved in cognitive tasks and attempting to strengthen a specific hemisphere does not improve creativity."

Hines stated further, "No evidence is presented to show that these 'brain dominance measures' measure anything related to the differences between the two hemispheres. In other words, no evidence of validity (of hemisphere dominance) is presented." (Wikipedia, 2009)

Although disparaged by some as over simplistic, the analysis proves helpful to individuals and organisations as' preferred thinking' routines are not a measure of criticism but rather of acknowledgement to cultivate flexibility in the situational use of thinking styles.

Criticism of measurements that require people to state preferences between terms is not limited to HBDI®. Independent research into cognitive style indicators notes that "there appears to be little or no published independent evaluation of several self-report measures developed as management training tools", evidenced by researchers C. W. Allinson and J. Hayes' 1996 publication of a competing cognitive style indicator called *Cognitive Style Index* in the peer reviewed Journal of Management Studies" (Wikipedia, 2009).

Other academic criticism in research literature, (in this case of the Myers Briggs instrument) puts forward that it 'lacks convincing validity data' and that proponents, and sellers of the test, cite non-blinded anecdotal predictions of individual behaviour, claiming the indicator has been found to meet or exceed the reliability of other psychological instruments.

A critique in the *Cognitive Style Index* indicator opined that progress in the field was "hampered by a proliferation of alternative constructs and assessment instruments… many unreliable with a lack of agreement over nomenclature".
(Wikipedia, 2009)

However, there is considerable proof that psychometric measurements are meaningful - researchers Hodgkinson and Sadler-Smith (2003) found cognitive style indicators 'generally useful' for studying organisations.

In the case of HBDI®, a differential item functioning review by Jared Lees in 2007 (Meenly, Smith, 2005), evaluated the system and an independent study in the same publication found that training in thinking styles (i.e. the HBDI® instrument) would produce greater creativity. (Wikipedia, 2009)

Flexibility in using all four styles of thinking is coined as 'Whole Brain Thinking' in the HBDI® measurement – to recollect; "Hermann synthesised his body of research into the four quadrant model; where each of us has access to any of the modes but clearly have preference to some over others. The thinking preferences, based on the dominance of the specialised thinking processes, form the basis of the Whole Brain Model, the foundation of the HBDI® tool."
(HBDI®, 2009)

The value of team exposure to whole brain thinking (HBDI Whole Brain Technology®) has endorsement from any number of independent companies "in a multitude of proven, different applications." (HBDI®, 2009)

The results range from reducing learning and development cycle times in new graduate sales reps from 24 months to 7 months: to a publishing company that aligned the thinking styles of readers with the content and style of the magazine to more than quadruple revenues in two years. (HBDI®, 2009)

HBDI® is an ongoing application relevant to organisational, personal and management development programmes. As business undergoes rapid transformation in the global era, optimising cultural diversity is, more than ever, the key to long-term success. (HBDI®, 2009)

Understanding diversity in the workplace is especially applicable to South Africa; individuals need help reconciling a fractured past - understanding and flexibility go a long way towards forming cohesive teams in companies. It resonates for personalities within a team, who know how to embrace diversity and have common ground to build relationships on.

HBDI® applications include communication, teams, problem solving, making decisions, career development, creativity, teaching, learning, and strategic planning. The top ten profiles represent 78% of the population and the data spans 48 different preference codes. (HBDI®, 2009)

2.4.   Interfacing Profiles

The Herrmann Brain Dominance Instrument interfaces in a team situation as follows:

- Personal profile and personality preference analysis.

- Team session for profile comparisons.

2.4.1.   Profile and analysis of thinking preferences

The HBDI® profile illustrates and explains the way an individual prefers to think; learn; communicate and make decisions. Interacting with the world and different situations requires different types of thinking.

Understanding personal thinking preferences optimises the ability to adapt thinking, decision-making or communication style to a given situation; it also explains why it is easier to communicate with some people than it is with others. Profiles cast light on why some elements of education or work seem to need less effort and prove satisfying and why some academic subjects or hobbies are more appealing. The profile bases metaphoric representation of the brain distinguished by four quadrants of thinking preferences as illustrated in the diagram below: (HBDI®, 2009)
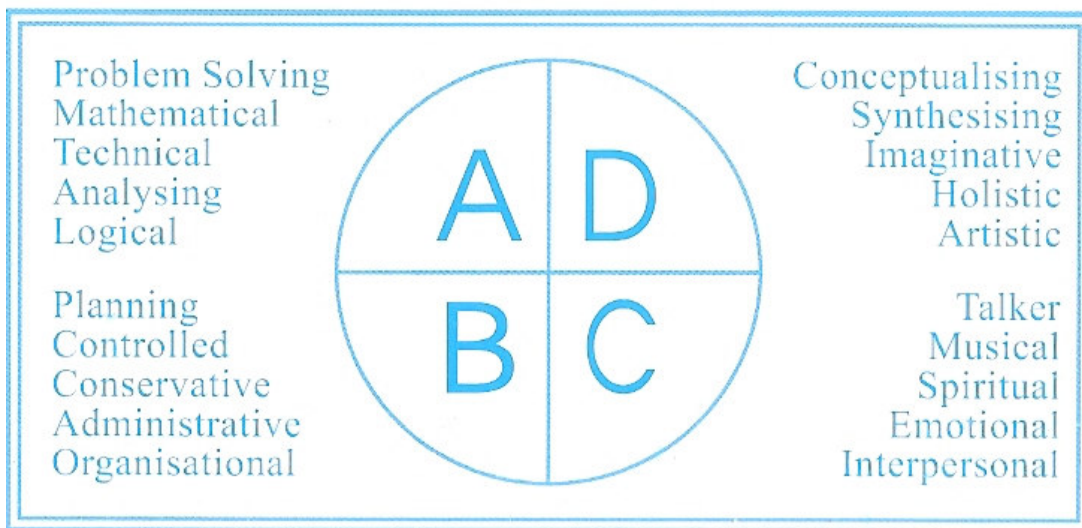
FIGURE 1: THE FOUR QUADRANTS OF THINKING PREFERENCES
(The International Herrmann Group 2000)

The results of the HBDI® survey questionnaire indicates the degree of preference for each of the four quadrants- all people have access to all four thinking modes- with the profile providing a 'picture' of the distribution of mental preferences at the given stage of the individual's life. (HBDI®, 2009)

 The survey is not a test and has no right or wrong answers- it reflects no 'good' or 'bad' personalities and does not measure intelligence, skill, or competency. A

low score in one area does not indicate inability but rather the profile data provides a better understanding of potential development and opportunities.

 The HBDI® profile captures a point of view invisible to others- hence a third party completing the survey gives imprecise results- and compensates for those attempting to tilt answers towards an idealised view. It reflects the view that most would find it self-defeating to provide inaccurate information and whilst mood can have a bearing on expanding higher 'preference' scores, the least preferred quadrant is, typically, unaffected. (HBDI®, 2009)

The HBDI® allows participants to become conscious of their own mental preferences and thinking styles and this awareness makes them more perceptive and effective with people who think differently (e.g. a left dominant person will be more at ease in a technical job that requires organisation, operational planning and administration. Individuals that reason logically, study verified facts and adopt a systematic approach inherently avoid fantasy and resist going off at a tangent, preferring to remain focused, rational and rigorous).

 Whereas, right dominant people enjoy new ideas and interpersonal involvement- they communicate symbolically rather than by pure reason and may think in pictures rather than in 'words and abstract concepts' and hypothetical issues are interesting. By all evidence, these aspects of communication and perception are opposite yet complimentary.

Everyone has a particular way to face and solve everyday problems. Right mode people proceed in a start and stop mode with periods of insight and incubation i.e. they take a step back and see the big picture with all the relationships between varying elements. They 'think' in a way that is illogical to a left- brain person- by using metaphor and analogy they make connections between elements that at first glance seem remote and unrelated.
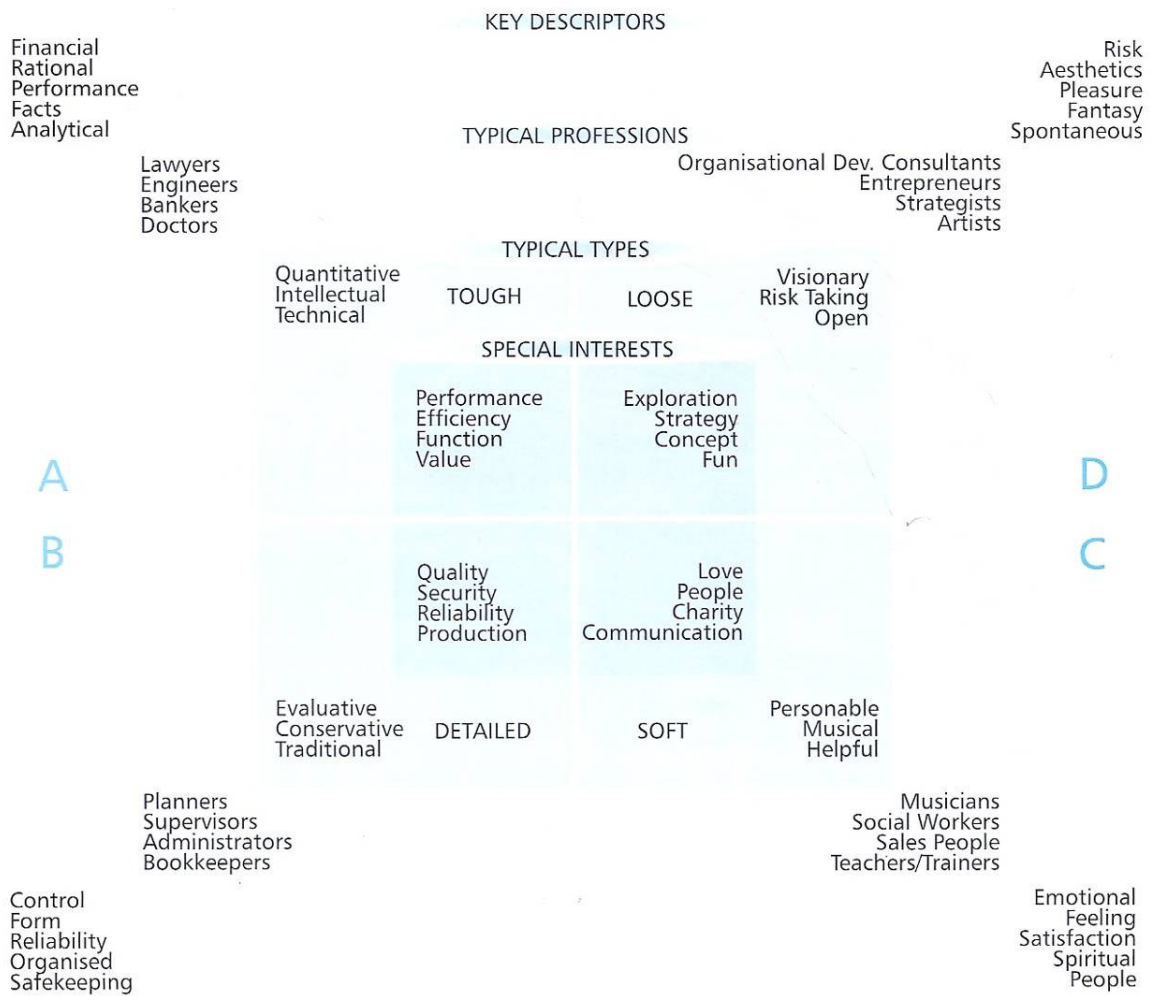
By contrast the left mode person prefers a more methodical approach; a detailed observation of the facts in a step by step process allows them to form a judgement- an approach that appears sterile and boring to the right brain person who would have difficulty following.

HBDI® helps people (and teams) understand how they prefer to approach problems; by raising their awareness they are able to reconcile different 'think' patterns and understand that their own thinking is not the only way, and that some approaches to problems require different types of thinking. The situations faced in daily lives calls for different mental processes; each needs continuity to address different situations as they occur.

Profile/preferences are circumstance dependant with the profile expanding/contracting (i.e. like an elastic band) according to the situation arising.

Distinctions between artists and scientists, engineers and sales people are as old as civilisation and statistical studies of Herrmann profiles identify 'typical profiles' for different career fields and job descriptions. Work and career links to mental preference and a team works more effectively if the individual members appreciate the differences in their thinking styles- the HBDI instrument proves that thinking-diversity leads to creative outcomes. (HBDI®, 2009)

 A study of hospital personnel revealed dominance differences among various jobs: Specialists (A Quadrant); Administrators (B Quadrant); Nurses (C Quadrant); Psychiatrists (D Quadrant). This mix of profiles is indicative of most working environments- the diagram with key descriptions of the quadrants will show why conflict and tension can proliferate:

KEY DESCRIPTORS

Financial
Rational
Performance
Facts
Analytical

Risk
Aesthetics
Pleasure
Fantasy
Spontaneous

TYPICAL PROFESSIONS

Lawyers
Engineers
Bankers
Doctors

Organisational Dev. Consultants
Entrepreneurs
Strategists
Artists

TYPICAL TYPES

Quantitative
Intellectual
Technical

TOUGH

LOOSE

Visionary
Risk Taking
Open

SPECIAL INTERESTS

Performance
Efficiency
Function
Value

Exploration
Strategy
Concept
Fun

A

Quality
Security
Reliability
Production

Love
People
Charity
Communication

D

B

C

Evaluative
Conservative
Traditional

DETAILED

SOFT

Personable
Musical
Helpful

Planners
Supervisors
Administrators
Bookkeepers

Musicians
Social Workers
Sales People
Teachers/Trainers

Control
Form
Reliability
Organised
Safekeeping

Emotional
Feeling
Satisfaction
Spiritual
People

FIGURE 2: COMPARISONS OF QUADRANTS INDICATING THINKING PREFERENCES (HBDI®, 2009)

26

UPPER LEFT A		UPPER RIGHT D
SKILLS Analysis, Evaluation, Qualification, Technical, Financial, Feasibility studies, Critical assessment.		**SKILLS** Innovation, Vision, Lateral thinking, Synthesis, Holistic, Strategic thinking, Catalyst for change.
STYLE Rational, Thorough, Precise, Logical, Authoritative.		**STYLE** Exploring, Imaginative, Adventurous, Experimental, Artistic.
Can appear (Particularly from a diametrically opposed quadrant) Rigid, Ruthless, Cold and Calculating, Short term, Limited by the need for proof/explanation.		**Can appear** (Particularly from a diametrically opposed quadrant) Unfocused, Impulsive, Rash, Oblivious of deadlines, Vague, Given to tangents, "To guess".
SKILLS Organisation, Implementation, Accuracy, Administration, Operational planning, Practical tasks, Completion.		**SKILLS** Customer relations, Teaching/Training, Communication, Anticipating needs, Team awareness.
STYLE Careful, Methodical, Procedural, Reliable, Predictable, Disciplined, Detailed, "Doer".		**STYLE** Caring, Friendly, Sociable, Empathetic, Humanistic, Emotional.
Can appear (Particularly from a diametrically opposed quadrant) Nit picking, Bossy, Stuck in a rut, Boring.		**Can appear** Over sensitive, Un-businesslike, Sentimental.
LOWER LEFT B		LOWER RIGHT C

FIGURE 3: COMPARISONS OF QUADRANTS INDICATING THINKING PREFERENCES (HBDI®, 2009)

Studying the key descriptions explains why teachers, trainers and effective communicators, who understand thinking styles, tailor presentations to audience 'fit', being sure to communicate key points in all four quadrants.

 For technician/engineer groups they give plenty of facts and emphasise logic and methodology showing potential results of practical application. To groups of artists, teachers, or social workers they emphasis innovative aspects and point out ways to improve communication and instruction. Communication is easiest amongst people who have similar preferences – i.e. they 'speak the same language' whilst those in diametrically opposing quadrants will be most challenged.

In summary, the profile reflects a diversity of thinking style preferences and takes into account different preferences with key words and colours to identify quadrants (A percentage preference is also given as a numeral code);

A: Analyse – Realistic- Blue

B: Organise – Sensible- Green

C: Personalise- Feeling-based-Red

D: Strategise – Idealistic- Yellow (HBDI™, 2009)

In the annexure, (one), is the profile overlay (the results are computer generated) of a 23 year old, male university student, who has a preference code of 1122 as analysed by the TBI consultant: "This is a double dominant profile with primaries in the left mode- Upper Left A and Lower Left B quadrants. It is the second most common profile in the general population, and the most common profile for males.

The profile is characterised by a logical, analytical, technical orientation and is effective in rational problem solving from the Upper Left A quadrant. Lower Left B quadrant preferences include planning, organising, implementing, and administrative activities. In this profile, the processing modes of Upper Left A and Lower Left B would clearly be the most preferred; the inter-personal, emotional, and spiritual modes of Lower Right C and the holistic, creative, and synthesizing, modes of Upper Right D would be at the secondary level, yet functional. This profile is typical of those occupations in technical fields, such as engineering and manufacturing, financial positions, middle managers and, in general, those positions for which left mode processing is clearly most important and where right mode processing is necessary, yet secondary.

Work that is considered a 'turn on' would include: accomplishing, analysing data, making things work, building things, establishing order and attending to details." (Team Building Institute, 2009)

2.4.2. Team session for profile comparisons entails discussion and comparison of team member profiles. The end goal of team profiling is to prove

the value of 'whole brain thinking' in a team. The "Herrmann Brain Dominance Instrument" (HBDI®) benefits team members in that appreciating diverse personality, thought and logic processes and embracing flexibility and understanding result in measurable value; in financial terms and in 'efficiency' improvement. The team session explores profiles and introduces ideas and exercises to manage thinking patterns.

Summary of personal experience of HBDI Method
March 2009 Duncan Gibbison

"As an individual experience the profile analysis helped clarify personality traits seen as weaknesses in myself. I realised, by understanding how preferences influenced me when under 'pressure', that I had to access quadrants where I scored lower to enable me to succeed in stressful situations."

The course instructors were never judgmental or critical and instilled confidence. When I practice the alternate quadrant thinking exercises I am more tolerant of people I am interacting with – first pausing to consider their point of view before entering into argument or debate -and being open to the idea that people with different ways of seeing problems might come up with solutions I would not consider.

Taking the course on the recommendation of professional managers who have used the HBDI® tool for a number of years in their organisations, I particularly liked the concept that competence and preference are two different things. The intention is to follow up the analysis with a 'father and son' adventure sessions."

" Knowledge of preferred processing modes clarifies the degree of satisfaction or discomfort when encountering learning or difficult interpersonal communication

situations. Statistics show a strong correlation between job satisfaction and how well a job matches one's profile; we have a tendency to orient ourselves towards professions that attract us and bring fulfillment." (HBDI®, 2007)

2.5. Can HBDI® help team members appreciate diverse personality, thought and logic processes?"

There is certainly plenty of anecdotal evidence on the Internet/ by word of mouth with the following quotes taken from the HBDI® website on 29 May 2009. "Using the Herrmann Brain Dominance Instrument – a tool to assess people's approach to emotional, analytical, structural, and strategic thinking – helped reshape the organisational culture of corporate leaders such as IBM, Victoria's Secret and Coca-Cola." (HBDI®, 2007)

"By making participants aware of many different tools for solving problems, by giving us a better understanding of human nature and why we act the way we do, the participants came away with enhanced creative thinking and problem solving capabilities'. - Pricewaterhouse Coopers

Novartis Pharmaceuticals Corporation
"We use Herrmann International Methods worldwide to strengthen our leadership communications and improve the effectiveness of new managers. The Whole Brain approach also played an integral role in our recent successful efforts to increase sales and improve customer satisfaction with our sales force."
- Larry W. Green, Vice President Global Marketing & Sales Learning

Positive Impact Consulting
"In one team building using the HBDI® and Team profile, I have earned twice what I invested in going to the Certification Workshop."
- Cherie Douglas   (HBDI®, 2007)

2.6. Testing the hypothesis

Pros

- HBDI® emphasises that there is no ideal profile - achievers come from all four quadrants and not all are suited to being 'Whole Brained'. The tool encourages understanding of strengths and weaknesses, preferences and avoidances. Desired strategies are to learn competencies in areas of weakness- being willing to 'change' behaviour widens individual scope to facilitate the 'team'.

- Applying the profile to interaction with family, business colleagues, and contacts shows how the profile influences communication.

Cons

- The real job of the HBDI® profile is to serve as a tool for personal development- but is it possible to change entrenched thinking patterns? The ideas and exercises need consistent practice (difficult for some) but if there is a reason for change, effort is required.
- The analysis is complicated and requires frequent re-imprinting to follow the concept through.
- HBDI® concepts need reinforcing at regular intervals and as the composition of 'teams' change.
- A skilled facilitator must interpret and apply the results of HBDI®.

HBDI® is an effective tool to make people more efficient by understanding and embracing diversity in the world around them. By applying the tool in the correct manner and reinforcing principles learned on a frequent basis, candidates retain learnt information and instill habits for daily living. Therefore, the hypothesis is correct.

Chapter 3

Sub-problem 2

"**Can AEL (Adventurous Experiential Learning) be used as a tool to build strong relationships within the team?**"

AEL is an acronym for Adventurous Experiential Learning- defined by word and collectively as follows:

3.1.   Definitions

> ***adventure*** *(n.) unusual and exciting experience*
> ***adventurous*** *(adj.) venturesome, enterprising*

The very nature of being **adventurous** means that the outcome is uncertain, because of inherent risks and reliance on the competence skills of the participant.

Risk implies losing something of value (examples being "physical injury, social embarrassment, emotional trauma" (Heunis, 2009)) and competency is combining"…skills, experience, attitudes, beliefs and behaviours…" (Heunis, 2009) brought to the venture.

"In 'Adventurous' activities risk versus competence manifests physiological and psychological responses in people- the reaction being negative (fear) or positive (peak performance). Shifting the uncertainty response from the "negative (apprehension to anxiety) to the positive (new competence or confidence)" (Heunis, 2009) establishes intra-personal relationships; i.e. interacting in adventure teams allows learning with others.

> *experience* (n.) *1. observation of or practical acquaintance with facts or events*
> *2. knowledge or skill resulting from this*
> *experiential (adj.) involving or based on experience*

"Learning is a process of education and a product of experience. All learning is experience-based. When we hear a lecture, watch a video or read a book- our learning is 'based' on those experiences……….learning becomes truly **experiential** when elements of reflecting, transferring and sustaining are added to the base experience (of action alone) to complete the experiential cycle. The 'Experiential' concept "is founded more on the active doing rather than the passive being done to. In this way, people practice the very skills they are learning and are more likely to maintain their change back in daily life (play, work or home) after departing from the learning experience. Experiential learning occurs when we change the way we feel, think or behave in our daily lives as a result of lessons obtained from experience and through a process of action and (at least one, but preferably all) of **reflecting, transferring** and/or **sustaining**". (Heunis, 2009).

Reflecting looks at, and develops, awareness of emotions evoked during experiential learning (i.e. reflective discussions highlight lessons learned from action events). (Heunis, 2009)

Transferring is the process of integrating lessons learnt in action and reflection into daily life i.e. fitting the practical application of a new idea into established daily routines. (Heunis, 2009)

Maintaining change (**sustaining**) is the long term goal and success is reliant on practice and providing 'follow up' to reinforce 'new' behavioural patterns. "When time and other resources are provided, and when opportunities to practice and apply changes are offered, people, groups or organisations sustain their new

learning, strengthen their opposition to erosion, and lessen their resistance to change". (Wikipedia, 2009)

> **learn** (v.) 1. gain knowledge or skill in **2.** commit to memory
> l**earning** (n.) knowledge acquired by study

Changing thought and behaviour patterns facilitates learning; "When there is awareness of the change, when we intend to make the change and when this change is maintained over time then learning is conscious (aware), deliberate (intended) and lasting (maintained)". (Heunis, 2009)

Attempts to learn or change are disrupted by "lack of processing (defeating awareness), the presence of resistance (defeating intent) and many barriers supporting transfer (defeating maintenance)" (Heunis, 2009).

Learning occurs when it results in "… a change of emotion, cognition or habituation (eXperientia, 1996)." (Heunis, 2009)

Adventurous Experiential Learning occurs "when we change the way we feel, think or behave in our daily lives as a result of lessons obtained from experiences with uncertain outcomes and through a process of action …" (Heunis, 2009)

3.2.   Adventure Experiences

Adventure allows participants to play competence against risks to favourably resolve the uncertainty of adventure related outcomes however, the nature of the activity is not as important as the ability of the facilitator to effect change. (Heunis, 2009) The more common activities include:

Socialisation Games "…are used to familiarise people with one another (socialisers), to de-inhibit them (ice-breakers) and to prepare them for interactive

movement (warm-ups). These typically form the initial 5 or 10% of a program (Priest, Sikes & Evans, 2000)" (Heunis, 2009)

Group Initiatives are "…group problem solving tasks that individually isolate a single team-work tool of interpersonal relationships (such as trust, communication or collaboration) or collectively test those tools in combination. These usually form the bulk of a group oriented or team building programme, with tools used before a 'breakthrough' and with tests applied after. (Priest & Rohnke, 2000)" (Heunis, 2009)

IMAGE 1: AEL MONTAGE GROUP INITIATIVES

(Photograph taken by Duncan Gibbison, 8th August 2009)

Trust Exercises (i.e. blind walks, falls) are "a unique subset of group initiatives that, when properly sequenced and facilitated, build interpersonal trust in a group. Establishing trust early is essential to open disclosure and sharing by clients in debrief". (Heunis, 2009)

Ropes or Challenge Courses are series of pole (or amongst trees) constructions negotiated individually/pairs **–** those over 2 meters high have aerial safety protection and low equipment relies on group spotting for participant safety. The challenges are adaptable for team-based programmes.
(Heunis, 2009)

IMAGE 2: HIGH ROPES (Island of Healing™)
 (Photograph taken by Duncan Gibbison, 8th August 2009)

IMAGE 3: HIGH ROPES (Island of Healing™)

(Photograph taken by Duncan Gibbison, 8th August 2009)

Outdoor Pursuits take from a single day to longer expeditions and entail rock climbing, cycling, mountaineering, rafting etc. and apply to "complex interactions of individual and group issues (leadership, risk, cooperation etc)." (Heunis, 2009)

Programme Types

The 'needs' of a developing team are diagnosed through client observations (interviews with members of the team and the 'leadership' contingent, customer feedback, 360° feedback surveys etc.) and programme designs can be time consuming; they run from an hour of planning to up to a month- and debrief discussions are usually mandatory. Programmes vary in length (from 3-10 days) and group sizes run from 2-1000 with an experienced staff allocation.
 (Heunis, 2009)

"AEL **programming** is the deliberate use of adventure experiences and facilitated experiential learning to bring about lasting change in intrapersonal and interpersonal relationships. Four types of AEL programmes are defined by their purpose of change: **recreation, education, development** and **redirection** (Miles & Priest: 1999)." (Heunis, 2009)

Recreation programmes change the way people feel and concentrate on 'experiencing' and enjoying the activities used to entertain, re-energise, relax, re-create, socialise or teach new skills.

 Little facilitation is necessary and since this is about having fun, debrief sessions stay nominal. Groups range from 20 to 1000 with a staff ratio of 1/100 and vary in length from 2 hours on. Programme planning is minimal with 'reunions' to bring everyone together to 'relive' the fun. (Priest et al, 2000)

Educational programmes change the way people think and feel and are used to gain awareness of and understand needs and new concepts.

Facilitated debriefing sessions and group discussions reflect on lessons learned during tailored adventure courses. Experienced staff members channel dialogues by asking the best questions in the right order to accelerate learning. Programme design takes about a day and the client's educational needs are revealed through 360º feedback surveys and conversation. A reality frame introduction suffices with 25% discussion and the balance 'practical experiences'. The programme varies in length from 1-3 days with group size from 10 to 100 and a staff allocation of 1 to 12 clients. Follow up sessions to check on 'new thinking' application are needed. (Priest et al, 2000)

Developmental programmes change the way people behave, think and feel by increasing positive functional behaviour and improving interpersonal and intrapersonal relationships. (Priest et al, 2000)

The transference of new learning to daily life needs facilitators to customise activities that accentuate behavioural changes as a 'contextual' fit for the client- the results 'boosted' by a short follow-up a few months later.   Development needs are analysed through interviews, customer conversations and 360° surveys. The programme is designed in under a week and accommodates groups of 5 to 20 with a staff member for every 5 people; running from 2 to 5 days. Half the time is shared between 'doing' and discussion. (Heunis, 2009)

Redirectional programmes change the way people resist, behave, think and feel. "They work by decreasing negative dysfunctional behaviour and/or by reducing opposition and denial." (Priest et al, 2000)

The change resistant programme is mostly about sustaining change when back in daily life and advanced level facilitators are called to use psycho-therapeutic techniques with a solution-focused approach. Unique and original 'adventures' are metaphorically applied for maximum impact- with programme design taking up to a month to complete. Courses vary from 3-10 days, have a staff ratio of 1 to 2 clients and groups range from 2-10. Client observations, interviews etc. reveal development needs in the 'team' and three quarters of the time is spent in debriefing sessions. (Heunis, 2009)

Therefore, the type of programme is not decided by the type of customer, clients or the activities but is determined by what it intends to change: feeling, thinking, behaving or resisting.

Heunis (2009) uses Priest et al (2000) to demonstrate in the following example: "A company uses group initiative tasks at a conference to make attendees happy and to get them mingling (recreation). The company uses similar tasks to demonstrate the value of team-work and to introduce new team strategies (education). Once the benefit of teaming is evident, the company uses group initiatives to actually build new teams (development). Lastly, one group is not getting along very well, they withhold information, sabotage change efforts and distrust one another – so the company uses similar tasks to help them become more effective in their work (redirection)".

3.3. Congruency/Discrepancy

AEL faces public relation concerns; "the **discrepancy** being that customers perceive the programme differently to that provided by reputable facilitators-customers expectations not being met opine dissatisfaction with outcomes and experienced facilitators know that to obtain **congruency** they need to ask a key question "What is most important for you to change in people, groups or organisations: the way they 'feel, think, behave' or the way they 'resist change'" (Heunis, 2009)

3.4 Case Studies

The following case studies (Unpublished manuscript: Heunis & Priest, 2009) show the wide range of programming approaches possible. The studies delineate the programmes designed to change behaviour patterns and those intended to change 'feelings'; they clearly define the programme intended to educate (i.e. change 'thinking') and 'redirection' interventions that change 'resistance'. Professional facilitators apply the correct courses to the prerequisites of the client and, by doing, obviate disappointed customers who 'bad mouth' the AEL concept.

Case Study A

UNIVERSITY OF PRETORIA

(Recreation Programme)

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"When I recall one of my most memorable recreation programmes (conducted for fun and to change the way people feel) I remember a class in Masters in Engineering Management students from the University of Pretoria. They were a single group of 50 and we were two facilitators working with all of them at once for a 3 hour session.

Before the programme we were not expected to do any pre-work, because TBI has been conducting the same programme every year with a new but different, group of students for the past 5 years, and we also have had a decade long partnership with the university, where they have come to rely on us to deliver our programme promises. According to their university programme director, this particular group was looking to socialise, network, and get to know each other. After all, this was the beginning of the semester and their first time ever meeting. Given that their needs and goals were so simple, we designed the half day event in just under one hour.

At the start, they had tea and coffee, but were all very distant from one another. Everyone was minding their own business, appearing very shy, and standing on their own to avoid speaking to anyone. During the programme, I presented a collection of name games, ice-breakers, and socialisation activities. We introduced these mostly with fantasy frames to emphasise the fun aspects of the activities themselves. At the mid-programme tea and coffee break, held in the same place with the same people, I saw a completely different scenario.

Suddenly, they were sitting in small groups talking and laughing together. I continued the rest of the programme with trust-building exercises, and simple group initiatives. I added some reality introductions and a few contextual frames about project teams. We spent 90% of our time just having fun with the activities, but we talked for maybe 10% of the time about how people were feeling. At the end, each student left with a smile, while knowing at least 10 names of their new classmates. You could just tell by looking at the team dynamic, that this was the beginning of several long term friendships.

After the programme the university director remarked that the students were more relaxed and comfortable with one another than if they had not taken the programme. Clearly, the recreation programme had accelerated this group through the early forming stage of group development (Tuckman & Jensen, 1977) and allowed them to get to know one another without having to do more difficult work in the storming and norming stages.

The recreation programme is a fun, short programme, with high impact, and a quick way to get people to laugh, feel good outside our daily lives, and just forget about the rest of the world for a while. A group who had enjoyed recreation, might progress to education (what TBI calls our Team Effectiveness programme), if they were interested in continuing with AEL programming".

Case Study B

GAP: Growing Accomplished People

(Development Programme)

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"PLAY (Practical Leadership and Youth development) is a specialised franchise of the Team Building Institute, with a vision to give all young adults (aged 13-25) the opportunity to grow and be all they can be in a diverse South African Society. Our outcomes include informed decision making, effective problem solving, goal attainment, and living with integrity. We help clients find the necessary self-knowledge to face the world and the much needed self respect to achieve goals and to develop into contributing adult members of their communities.

I would like to share a development programme of two staff (a facilitator and a skills instructor) working with five GAP students (familiar with school, with easy lifestyles, cared for by others, but lazy, complacent and at risk of substance abuse or other poor life choices). After meeting with the students and their teachers a month ahead of time to talk with each student, and the group five together, we spent two days designing a series of several monthly interventions. The month between interventions allowed us to create an ongoing programme where earlier interventions were diagnostic and later interventions were follow-up. We tailor made the adventure activities to suit the smaller group. We introduced these activities and discussed them in the contextual terms and made everything a part of their daily lives. Debriefs took about the same time as the activities and I added alternatives like journaling and modelling (active reviewing and role playing).

At two interventions of games, exercises, initiatives, and high ropes, where they made their own choices and accepted the consequences of those choices, we identified life barriers (alcohol, peer pressure, racism, laziness, lack of motivation

and depression) and examined diversity due to our differences(communication, beliefs, values, thinking styles, passions, likes or dislikes). For the third, we enjoyed several days of outdoor pursuits (caving and hiking) and explored the unknown (stretching limits, accepting ideas, handling constructive criticism or working together as a team). For the fourth intervention, we experienced a therapeutic session, where all kinds of personal issues were surfaced and they reflected on the year to create a team road map.

When this group of five first came to me, they were full of fear and apprehension. Their body language and the questions they asked showed the anxiety of a small child thrust into a big adult world. During one of the many interventions, we hiked a long way to see some bushman cave wall drawings and talked about our own lives. We discussed the good or bad pictures that we would leave based on our lifestyle and what this might tell others about our feelings, thoughts, behaviours, values and ways of living. This was a powerful breakthrough moment for the group, because they referred to this introspection and self-discovery often. They spoke about pictures during debriefs, used visual language ("I see"), and formed their road map through a collage of images from modern magazines. After the programme they had a better understanding of themselves and others. They were a unified team in the truest sense, full of passion, energy, willingness and positive thoughts. Of course they still argued like youth, but they worked out their differences like mature adults".

Case Study C;

MEMEZELO HIGH SCHOOL

(Redirection Programme)

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"Our visits to Memezelo High School, in Soshanguve, just North of Pretoria, found school facilities, buildings, and sports fields that were dilapidated and hadn't been maintained for years. Broken windows, filthy classrooms, graffiti on the walls, and rubble on the grounds were common. Our earlier meetings with a director from the Department of Training and Education said our teacher redirection programme was their last hope. In our conversations and observations, we learned that the school had an annual pass rate of less than half. The thirty teachers suffered from lack of ownership and pride, absenteeism and blaming behaviour, low motivation and teamwork, and the absence of organisation and urgency. The 1200 pupils, in grades 10 through 12, were disrespectful to one another and their teachers, lacked discipline and pride, had high truancy and vandalism rates, and were abusing drugs and alcohol. The school governing body remained uninvolved and uncommunicative. We were very concerned for these children are the future of South Africa.

About a month before the first programme, we designed an ongoing arrangement of multiple interventions that focussed on the teachers, but also involved the pupils and governing board as needed. These plans changed frequently due to attendance issues, so we had to remain flexible. First, we brought the teachers, pupil leaders, and governing board representatives together for a few socialisation games to gain their commitment to the sequence of events and to functional change. Second, we divided the 30 teachers into two groups of 15 and

built their teamwork through group initiative activities with an emphasis on metaphors due to contextual and isomorphic framing. Third, we conducted a session to reinforce the learning and metaphors to that point. Fourth, we explored individual thinking preferences to understand their different styles of communication styles and problem-solving approaches. Fifth, we started some pilot programmes with the grade 12 pupils emphasising the importance of personal responsibility. Sixth, we brought everyone together again for a fun time on Youth Day. Seventh, we did team building with the pupils and teachers. Most of the time our two facilitators were applying solution focussed techniques and, on average, we were in group discussions about 70% of the time or doing activities about 30% of the time.

After participation, the teachers were more positive about their work. They came up with more solutions and reasons to succeed than they did problems and reasons not to try. They were more responsible towards their pupils and more open to identifying their differences in order to make a difference. They said that learning had improved their communication and sharing of feelings, but that they realised the system still played a handicapping role in their ability to bring change. In the future, we eagerly anticipate increases in the pass rate for next year and our plans are to build a ropes course at the school and train grade 12 pupils to facilitate students and their community in a centre for learning and development. We believe that the best way to learn is to teach and by empowering the students to facilitate in this way, they will develop independence for their school and ultimately bring great change for their community".

3.5. Key tenets of AEL

3.5.1 Challenge by Choice

'Challenge by choice', (Heunis attributes the term to Karl Rohnke while working for Project Adventure: 2009) defines AEL and lets participants choose the level of engagement they feel comfortable in. Heunis (2009) expounds; "…they can choose to complete every aspect of the experience, pick only those pieces they like and avoid those they do not, or simply select the opportunity to observe others in action rather than participate in any other way." All AEL programmes should advocate 'freedom of choice'.

Observers are encouraged to participate in group dialogues or debriefings, but everyone has the right to 'sit out' of discussions if they are more comfortable doing so. Facilitators recognise the distinction between "avoidance behaviour and physical or socio-emotional safety" (Heunis: 2009) and know that there are some who elect 'challenge by choice' to opt out. However, the benefits are numerous. Heunis categorises; "it **empowers** (accountability for success or failure to address potential change); it is **proactive** (optimal performance as clients relax in advance); it is **personal** (own goal setting within own parameters); it allows asking "…for **help** and negotiate the **support and safety** they need." It **respects** the individual- where the understanding is that 'trying' is more important than succeeding i.e. it puts 'failure' into context. (Unpublished manuscript: Heunis & Priest, 2009)

3.5.2 Full Value Contract

AEL philosophy advocates 'full value contract' as a foundation 'tool' to build courses on. Heunis (1997: 83) articulates: "…The 'Full Value Contract" is another concept modified from Project Adventure and adapted from transactional psychology. It asks clients to" fully value their actions, feelings, thinking,

behaviours, or resistance, and (in some cases) those actions, feelings, thinking, behaviours, or resistance of their group. It simply asks clients to avoid 'discounting' themselves or others. Examples of discounting behaviours might be avoiding others or ignoring personal fears, disrespecting others and not trusting one-self, putting down the group or simply not trying individually, and endangering someone else or putting your-self at risk." (Heunis, 2009)

Heunis (1997) is summarised: the no-discount approach helps **allay fears** (especially when used with 'challenge by choice'): **validates attendance**: reduces **avoidance** and **passivity**: motivates **involvement**: fosters **accountability** (with regard to safety instructions): encourages **questions** and enables **responsibility.** The Ground Rules (from the programme) and Operating or Unifying Principles (from the participants) clarify how clients "… want to be treated, and how they will treat others." (Heunis, 1997)

3.6. AEL: Philosophy

Philosophy /n. 1. use of reason and argument in seeking truth and knowledge of reality, esp. knowledge of the cases or nature of thing and of the principles governing existence 2. Particular system or set of beliefs reached by this 3.personal rule of life

AEL regards sound philosophy as seeking wisdom in six categories: aesthetics, ethics, logic, politics, epistemology, and metaphysics. (Heunis, 2009)

3.6.1. Aesthetics

Aesthetic - adj. 1. of, or sensitive, to beauty 2. artistic, tasteful *Aesthetics* – n. (in *pl.*) philosophy of beauty

An appreciation of nature is an added benefit of AEL courses. The natural beauty of the outdoors engenders a change of attitude, not only in **intrapersonal** and **interpersonal** relationships, but also to the environment, where exposure to recycling, conservation, and leaving a 'light footprint' on the land is fostered and encouraged. Team Building staff share their knowledge of **ecosystems** (nature synergising with nature) and **ekistics** (the reciprocity relating humans to nature); these four factors combined encourage spiritual reflection. (Heunis, 2009)

3.6.2. Ethics

> ***Ethic***- n*.* set of moral principles (related to Greek: Ethos) *ethics* n. *pl*. moral philosophy *Ethical* -adj. relating to morals, esp. human conduct

Group facilitators, skills instructors, and trip leaders base moral conduct on a code of professional ethics. When faced with unexpected ethical dilemmas they use intuition or 'a gut feeling' to reinforce their 'value system' and decisions by listing options with predictions of outcomes and consequences. They look at existing 'professional codes of conduct' and apply enduring, valued beliefs (i.e. "… such at **autonomy** (act freely as long as others are not impacted), **non malifecence** (above all else, do no harm to others), **beneficence** (contribute to the health and welfare of others), **fidelity** (be loyal, faithful, respectful and confidential), **justice** (treat others fairly and equally) and more. Challenge by choice incorporates all of these." (Heunis, 2009)

As a last resort the ethical theories " …'**balancing**' (do the least harm to the fewest people or the greater good for larger group) or '**universalisability**' (do the same as you would do given similar situations with slight differences)" are applicable. (Heunis, 2009)

3.6.3. Logic

> ***Logic*** – n.1a. science of reasoning 1b. particular system or method of
> reasoning 2a. chain of reasoning (regarded as sound or unsound) 2b. use of
> or ability in argument

Heunis paraphrases Priest & Gass (2005) -" ... certain logic underlies all AEL
programmes. Clients need to solve problems, make decisions, and use sound
judgments during adventure experiences with uncertain outcomes. Skills
instructors, trip leaders, and group facilitators must be experts at solving
problems, making decisions, and using sound judgement to resolve the
uncertainty."

Heunis is summarised when stating: **problem solving** requires a simple, three-
phase model namely; **assessment** (seeking and recognising problems;
evaluating the successful solution): **analysis** (4 decision making steps) and
creative techniques (employed to 'untangle' difficult decisions).

The **analytic** phase defines the root of the problem: i.e. it foresees the 'best'
result: identifies grasped options: and opts for solution. If answers are not
immediately apparent during any of the phases then creative techniques widen
possible options.

Creativity encompasses; **brain storming** (expressing ideas without criticism or
evaluation): **extended effort** (working through 'dry spells' or 'pauses' to generate
innovative ideas): attribute listing (inventory of the idea's characteristics): forced
relationships (combining the attributes in new ways) and **deferred prejudice** (not
accepting the first idea that comes up; waiting for new concepts to emerge).

Collating the information generated permits a **decision**. The data is sorted by;
gathering (collect and categorise): **weeding** (reduce list to the best ideas):

organising (itemise a comparative chart): **weighting** (assign values to each idea) and **choosing** (opt for the 'best value' option). If processes stall through unknown quantities, substituting sound judgement, (by accessing past experiences as a basis,) allow decision-making. 'Experience' decisions involve pooling **inductive** (specific experience to general concept): **deductive** (general concept to specific prediction) and **evaluative** (predictive accuracy) techniques. 'Experience' is a combination of practicing, then reflecting on judgement, decision- making, and problem solving. (Heunis, 1997)

3.6.4. Politics

Politics – n. pl. 1. art and science of government 2.public life and affairs

AEL defines 'politics' as the interaction between participants and Team Building staff and Heunis, et al, breaks the process down as follows:

Group Evolution illustrates the "… typical transition and transformational process that many teams experience on AEL programmes. Tuckman and Jensen (1977) identified this progression as five stages; **forming** (the group comes together): **storming** (internal conflict ensues): **norming** (order established through standards or guidelines): **performing** (group becomes a functional team) and **adjourning** (team breaks up). You can expect to see evidence of these stages in AEL programmes, but not all groups are identical."

AEL experience notes that **Leadership** styles "…range from **autocratic** (leader holds majority of decision making power), through **democratic** (leaders and clients share decision making) to **abdicratic** (leader abdicates majority power to the clients). Good leaders need flexibility to suit tasks, relationships, conditional favourability, and the stage of group evolution." (Heunis, 2009)

Ground Rules "… are those non-negotiable ways of treating one another that the AEL programme dictates as necessary for participation. Breaking these rules may be grounds for expulsion. Examples include; violence towards self or another: follow safety guidelines: speak for yourself instead of others: and turn off pagers and phones". (Heunis, 2009)

Unifying or Operating principles "… are those ways of treating one another and working together as a team that clients agree on and adopt for their own team during a programme. Violation of a principle is simply 'grist for the mill' in subsequent group debriefings. Examples include; honour time limits for breaks, tasks or planning, the team shares in rewards and consequences, and only one person to speak at a time." (Heunis, 2009)

3.6.5. Epistemology

Epistemology- *n*. philosophy of knowledge

Heunis (2009) reveals an AEL doctrine that harks to the age of the Greek philosophers and more recently, William James and John Dewey.

Socrates, and his student Plato, believed youth should acquire the value system of an ideal society to mature and encouraged the situational practice of these 'virtues' to engrain behaviour. (Kurt Hahn's 'Outward Bound" is based on the same principal). Plato, and his student, Aristotle, identified wisdom, bravery, temperance and justice as virtues critical to human growth and development-principles elementary to AEL.

Heunis identifies William James as the proponent of **Pragmatism** being "the philosophy that the value of any experience is determined by the degree of learning that comes from the actions and consequences of the experience. He

believed that theory, learning and experience were only valuable if these were practical or could be applied to daily life."

To sum up Heunis (2009): Dewey, as the parent of modern **experiential learning,** espoused pragmatic philosophy as 'real life' learning in opposition to 'preparation for living'. He believed in cooperative problem solving rather than memorisation for testing, postulating that 'democratic' thought encouraged 'free' or 'critical' thinkers but learning by rote produced an 'accepting', complacent society. (Heunis, 2009)

3.6.6. Metaphysics

Metaphysics- *n.pl.* branch of philosophy dealing with the nature of existence, truth and knowledge. 2. *coll.* abstract talk; mere theory (Greek, as having followed Aristotle's work in physics)

"Evert (1983) described AEL as like electricity; we throw a switch and the light comes on. It all works, but we just don't know how". Heunis (2009) shows that early theoreticians attempted to explain how AEL works. " Walsh & Collins (1976:16) first identified the Outward Bound Process as " the learner is placed into a unique physical environment and into a special social environment, then given a characteristic set of problem solving tasks, creating a state of adaptive dissonance to which the learner adapts by mastery, which reorganises the meaning and direction of the learner's experience." Heunis (2009) puts forward that the unique physical environment contrasts with daily life raising awareness to acknowledge 'old behaviour patterns' and practice new 'behaviour' in "safety, without the fears or pressures of daily life."

This "special, social environment" says Heunis (2009), is "… fundamental to AEL programmes. The groups need to be large enough for differences, conflicts or team support to manifest and small enough to diversify, resolve conflicts, or

individual strengths to shine. A characteristic set of problem solving tasks refers to the events that are organised, incremental, concrete, manageable, consequential, and holistic. The state of adaptive dissonance exists between the learner's perception and reality, but as the learner adapts by mastery, from an old to a new state, new lessons are learned. This becomes a change of feeling, thinking, behaving, or resisting and the meaning and direction of the learner's experience is restructured…"

A large part of AEL success lies with competent, professional staff components. To be effective in meeting, or exceeding, it's goals the Team Building Institute emphasises that it's members are expected to be; "translators (guiding reflection on experience): initiators (framing or introducing 'adventures'): trainers (teaching new skills): maintainers (motivating high energy): authorities (influencing the group): guardians (responsible for risk and safety), and exemplars (modeling feelings, thoughts, behaviours, and change). (Heunis, 2009)

3.7 Summary and Conclusion

Self examination proves uncomfortable for most people and usually manifests as negative, self criticism with objectivity being difficult. Team Building provides an opportunity for introspection, to quantify 'people skills' based on interaction with colleagues in 'neutral territory' and for impartial, measured advice to advance careers and 'life skills'. The results of the HBDI® questionnaire are cause for deliberation and elucidate perceived 'problem areas' in character. These are, primarily, 'mental' processes, however, the AEL activities expose 'physical' (and highly visible) 'weaknesses' openly to colleagues (i.e. fear of heights, lack of strength).

Men, especially, place value on 'physical presence' and are defensive in 'pressure' situations. Woman, traditionally are not asked for 'physical' input and need constant encouragement to participate. Both are uncomfortable with

'insecurities' on 'public display'- every one is sensitive to 'self-esteem' issues. Sometimes, it is easier not to try, than being seen to 'fail'. The 'ego' aspects intensify in a work environment. In all likelihood, 'the Boss' is present - more complicated emotions to deal with!

AEL, however, succeeds in deflecting the emphasis from 'the individual' to 'the team' by ensuring that exercises are concluded effectively by team work alone. For example, a 'team' exercise on the high ropes amounts to; an element of fear on observing the challenge ('height' is not a 'comfort zone' for most): fear of falling - if not taking the proffered, helping hand of a 'hated' fellow worker and the excitement generated when the challenge is successfully completed.

Each aspect generates emotions that need 'managing' and herein is the success of the AEL formula. 'Strong' individuals, who excel in 'physical' situation, gain perspective when unable to complete exercises without the help of the team. 'Weaker' members, 'problem solve' to benefit the 'team' effort. The 'individual' realises that colleagues value and applaud 'team effort', rather than 'individual-success', realising the world is a better place with less 'me, me, me' and more 'us, us, us'.

AEL promotes acceptance of self, tolerance of others and appreciation for cultural diversity. On a personal level it develops self-esteem (when achieving goals not previously thought possible) and creates awareness of personal prejudice.

3.8. Testing the Hypothesis

AEL is an effective tool in building strong relationships between team members. The hypothesis proves true because by following the educational process and taking part in AEL activities, individuals acknowledge individual personalities; they discover the satisfaction of working together pro-actively and efficiently.

Chapter 4

Sub-problem 3

***"Is a typical project team inherently compatible and if not can they be made
to be compatible?"***

4.1 Introduction

Analysis of the HBDI® profiling a professional team provides data for the above
hypothesis. The specific details are confidential; however, an overview provides
sufficient information to interpret.

The core business of the team is construction and TBI (Team Building Institute)
facilitated a 3-day session of 45 participants who, debriefed in detail individually,
and as a team, using HBDI® and AEL methodology.

The group composite profile is an overlay of each individual's profile on the
profile grid, demonstrating preference strengths for the 'team' and individuals for
each quadrant. Quadrants also show areas of lesser preference- ideally a 'whole
brain' team shows strengths in each quadrant.

The data analysis is the work of Liesel Swart of the Team Building Institute.

4.2. HBDI® Profile Analysis

The profile indicates the team's strong preference for the A and B quadrants,
intermediate preferences in all quadrants, and very low preferences in C
quadrant.

The extract, below, (from Hermann International Africa- Profile Representation) illustrates dominant preferences; functioning in the Left Mode (A+B).

Overview:

"Considering things and people realistically, logically, factually, analytically (broken down into essential elements). It means thinking sequentially (a step at a time), liking precision, having control, measuring and numbers."

DOUBLE DOMINANT PROFILES- LEFT & RIGHT
Clearly defined preferences provide direction
May conflict with opposing mode

Double dominant left or right profiles experience an internal integrated coherence in the same fashion that single dominant profiles do. In both left and right double dominant profiles, the two quadrants tend to reinforce each other. The logical, rational processes of the A quadrant reinforce the structural and procedural qualities of the B quadrant. Likewise, the visual, imaginative approaches of the D quadrant support the expressive, sensory elements of the C quadrant.

As opposing modes, double dominant left might perceive their right counterpart as unrealistic and unfocussed. The double dominant right might see their left counterpart as controlling and pedestrian.

In both cases, these individuals will benefit from a greater appreciation of their mental opposites, not only to improve their communication and relationships, but also to appreciate mental processes very different from their own, allowing them to more effectively 'cross the bridge' between hemispheres.

1122

This is a double dominant profile with primaries in the Left mode- Upper Left A and Lower Left B quadrants. It is the second most common profile in the general

---

population, and the most common profile for males. The profile is characterised by a logical, analytical, technical orientation and is effective in rational problem solving from the Upper Left A quadrant. Lower Left B quadrant preferences include planning, organising, implementing, and administrative activities. In this profile, the processing modes of Upper Left A and Lower Left B would clearly be the most preferred; the interpersonal, emotional, and spiritual modes of Lower Right C and the holistic, creative, and synthesising modes of Upper Right D would be at the secondary level, yet functional. This profile is typical of those occupations in technical fields, such as engineering and manufacturing; financial positions, middle managers and, in general, those positions for which left mode processing is clearly most important and where right mode processing is necessary, yet secondary. Work that is considered a 'turn on' would include: accomplishing, analyzing data, making things work, building things, establishing order and attention to details.

Most comfortable communication approaches may include:

*Brief, clear and precise info * Well articulated ideas presented in a logical format *Step-by-step unfolding of the topic *Explanation in writing

However, may overlook:

*Eye-to-eye contact * Visuals *An overview *The personal touch and informality

The most natural problem solving strategies would include:

*Re-engineering *Brainstorming *Modeling *Sketching *Research *Strategic thinking

However, may not consider:*Interactive brainstorming *New ideas *Team processes *Feelings

To make a decision, a person with this profile may ask:

*Do I have all the facts? *Has all the research been completed? *Will I be in control?

However, may overlook:

*Asking for others' opinion *Looking at the overall picture

4.3 Graphic Presentation of Composite Profile

"The composite profile is an overlay of each individual's HBDI profile on the profile grid. This report demonstrates strengths of preference, for individuals and the group for each quadrant of the whole brain model. It also displays areas of lesser preference for each quadrant."

"The profile indicates the team's strong preference in both the A and B quadrants (scores over 100) and intermediate preferences in all the quadrants and very low preferences (scores under 30) in the C quadrant.

There is quite a big preference range in the Quadrant A, of blue, quadrant. A broad range of preferences in one quadrant can create conflict and stress. Where the range of preferences is narrow (B quadrant), the team can experience 'group think' in that quadrant, a benefit at times and at other times possible a hindrance.

Spikes occur in quadrant A, where individuals scored very high, even off the chart in some cases. This implies the possibility of conflict and misunderstanding of individuals that are strong in the opposite quadrant e.g. C.

The team profile is 'fairly balanced', considering the upper cerebral mode and lower limbic mode with scores of 52% and 48% respectively. This is due to the high scores in the upper left blue quadrant and the lower left green quadrant.
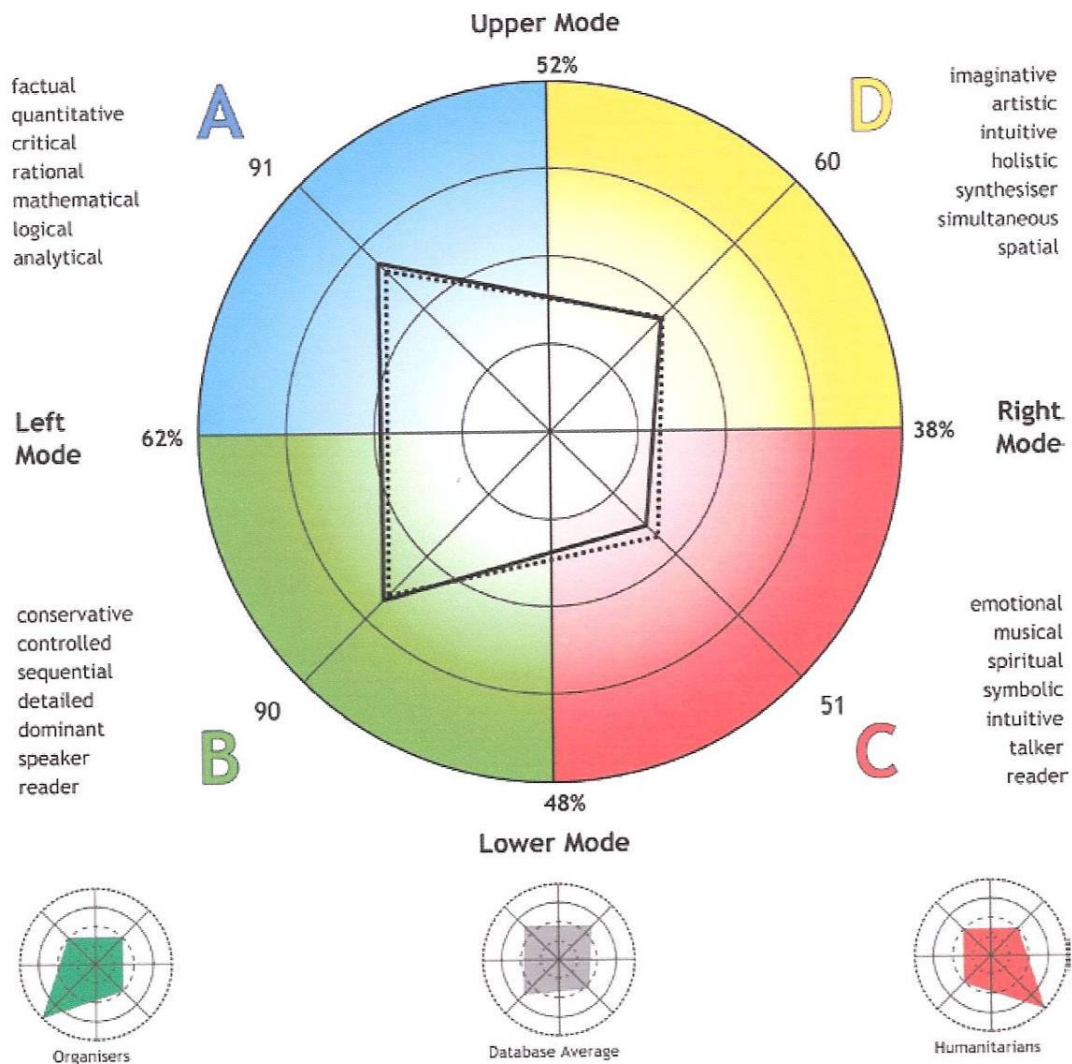
The team is much stronger in the left hemisphere with a score of 62% comparing to 38% in the right hemisphere. This can lead to the team neglecting right brain issues such as creativity, feelings, emotions, innovation, and teamwork." (Swart: TBI, 2009)
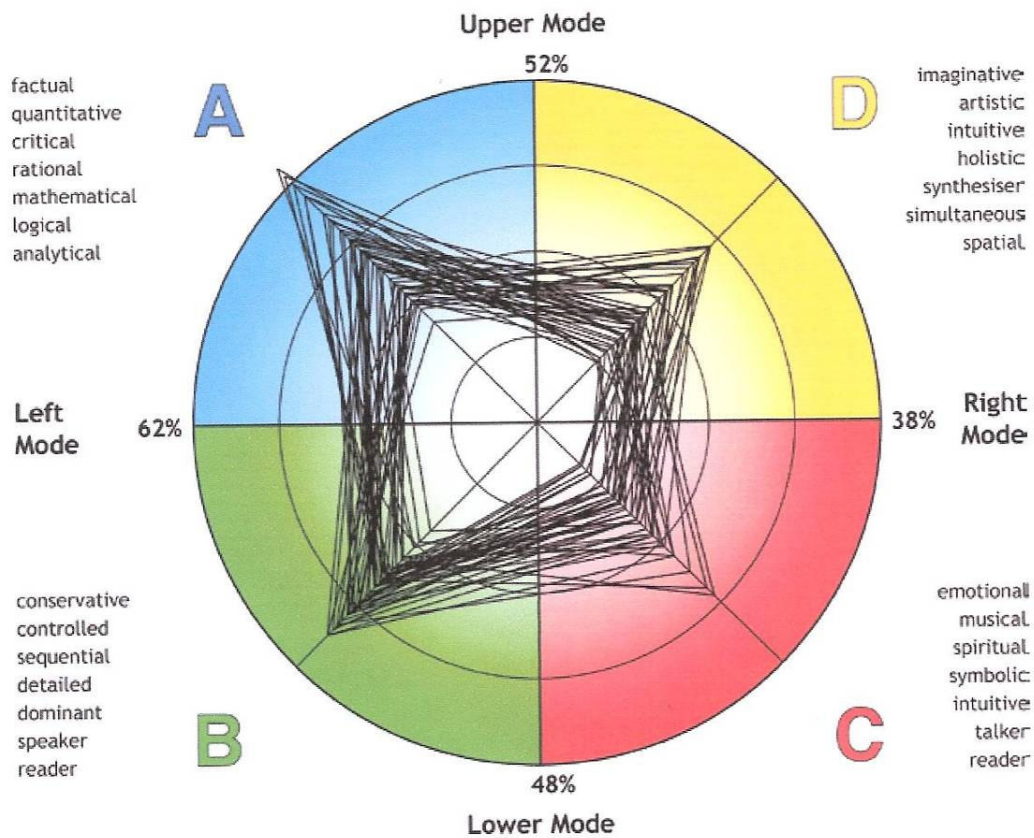
FIGURE 4: GRAPHIC PRESENTATION OF COMPOSITE PROFILE (Swart: TBI, 2009)
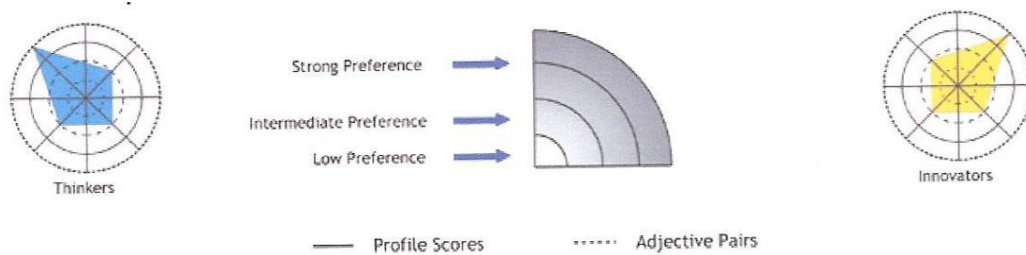
FIGURE 5: GRAPHIC AVERAGE PROFILE (Swart: TBI, 2009)

FIGURE 6: GRAPHIC PRESENTATION OF AVERAGE PROFILE (Swart: TBI, 2009)

4.4 Graphic Presentation of Average Profile

"The solid black line diagram shows the overall team preferences for each quadrant. The dotted line diagram shows the adjective profiles scores for each quadrant indicating how the team will perform under pressure.

The graphic presentation of the average profile shows a tilt towards the left hemisphere. The team's primary zone preferences occur in the A and B quadrants and intermediate preferences in C and D quadrants.

Challenges might occur in decision- making where scores in the different quadrants differ with more than 20 points. In this profile, it occurs between A&D, A&C, B&D, and B&C.

The adjective pair profile shape (dotted line) is very similar to the solid line. Though, there is a slight increase in quadrant C, but the difference is rather insignificant." (Swart: TBI, 2009)

## 4.5 Rank Order of Team Preferences by Quadrant and Process Flow of Preferences

"This display shows the rank order of overall preferences for the team, in descending order of preference from the most to the least. This often reflects the direction of the 'team' thinking in their day –to- day work process (not in times of stress).

 The rank order in this profile indicates a strong preference in quadrant A & B with scores of 91 and 90 respectively and intermediate preference in quadrants C and D with scores of 60 and 51 respectively.

The flow of this chart starts with the A quadrant, moves to the B quadrant, the D quadrant and finally to the C quadrant."

(blue)	A Upper Left	91
(green)	B Lower Left	90
(yellow)	D Upper Right	60
(red)	C Lower Right	51
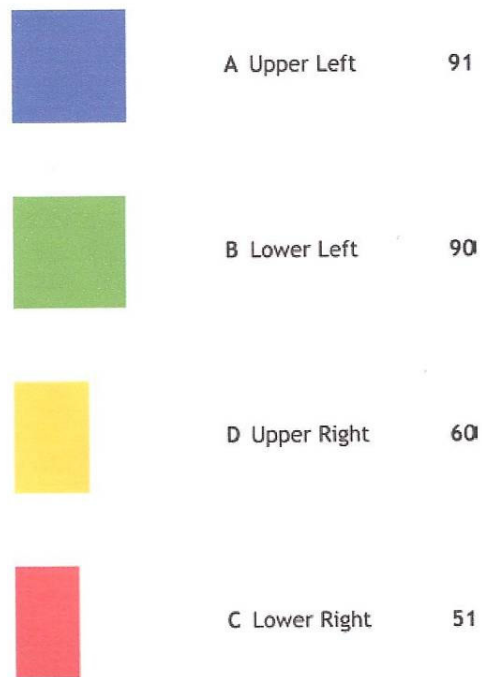
FIGURE 7: RANK ORDER OF TEAM PREFERENCES BY QUADRANT AND PROCESS FLOW OF PREFERENCES (Swart: TBI, 2009)

A — Facts 31%

D — Future 21%

B — Form 31%

C — Feeling 17%
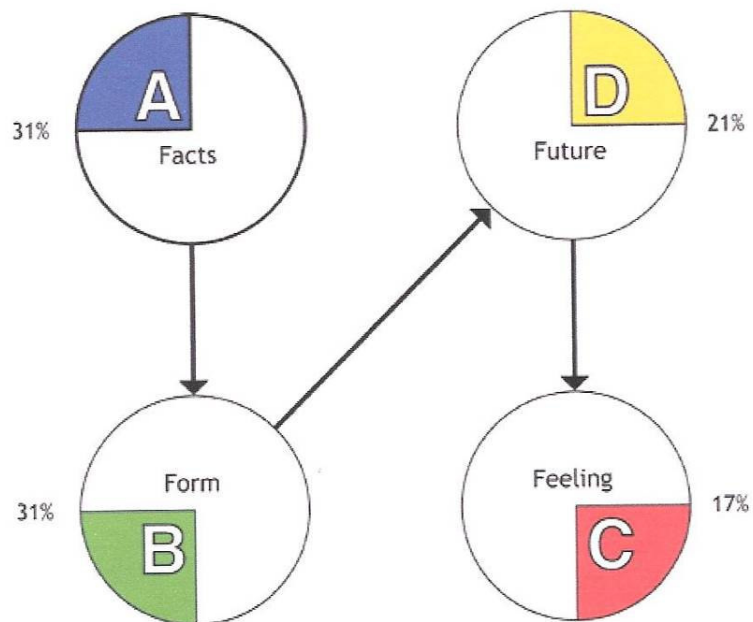
FIGURE 8: BREAKDOWN OF QUADRANT PREFERENCE (Swart: TBI, 2009)

"This could mean that the team might sometimes overlook the personal/emotional side meetings as well as creative/innovative ideas. They will probably start and end meetings in the A and B quadrants and never get to the other two quadrants since it might make them feel uncomfortable. There is a slight difference in the process flow under pressure in the way that it starts at the B quadrant and then moves to the A quadrant. The rest of the process flow remains the same. This is a very small difference and quite insignificant and wont have an impact on the team's decision- making." (Swart: TBI, 2009)

4.6 Alternate style from Adjective Pairs

"The graphic presents the alternate flow of preferences according to the Adjective Pairs section average results. The adjective Pair result tells us something about how we react when under 'pressure'. This may or may not be consistent with the general behaviour of this team." (Swart: TBI, 2009)
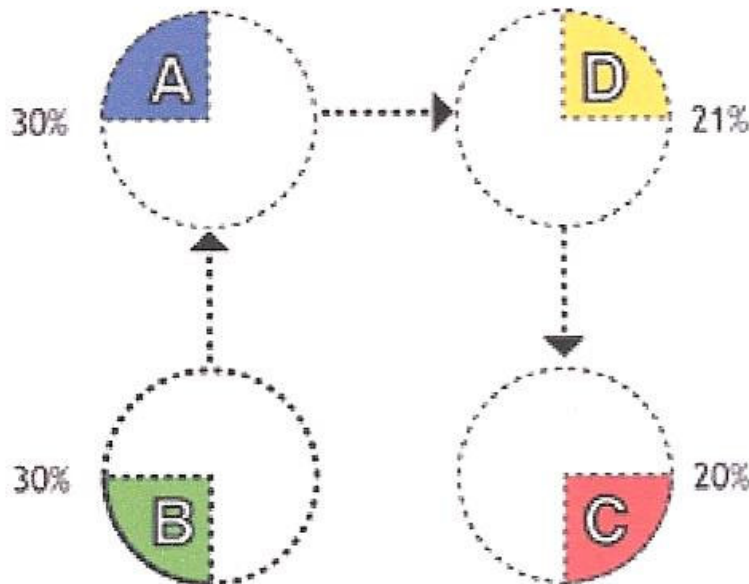
**FIGURE 9: ADJECTIVE PAIRS** (Swart: TBI, 2009)

4.7 Dominance Map

"The normal preference map displays all the individual profiles cluttering together in the A and B quadrants.

However, the preference map of the adjective pairs shows there are quite a few individuals whose profiles shift to the red and yellow quadrants, giving the preference map a more balanced look.

Under pressure, some individuals might feel left out of group discussions and activities since their preferences are so far away from the majority of the team (nr. 3,7,24 & 43)." (Swart: TBI, 2009)
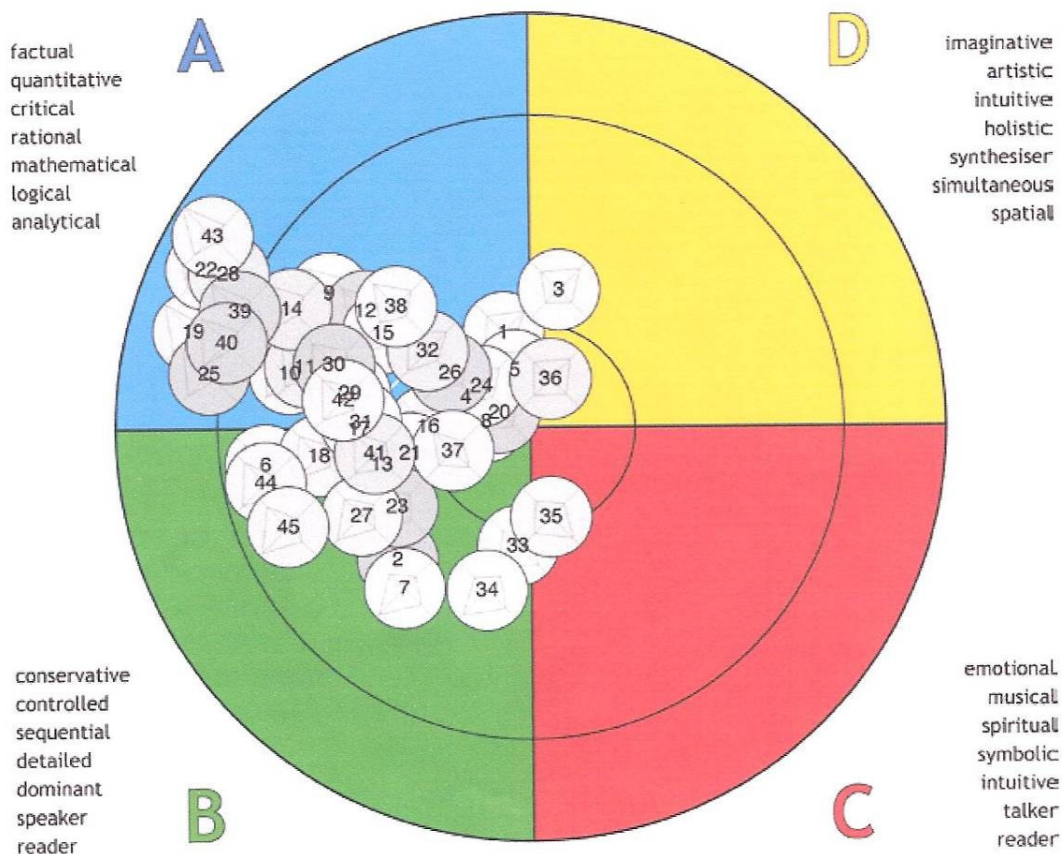
**FIGURE 10: DOMINANCE MAP** (Swart: TBI, 2009)

4.8 Work Elements by Quadrant

"The work elements indicate that the majority of the team scored high on problem solving, analytical and technical in quadrant A, and implementation, planning and organisation in quadrant B. The rank order indicates that even though quadrants C and D are not strong preferences, work elements such as expressing and interpersonal in quadrant C and innovating and creativity in quadrant D scored quite high." (Swart: TBI, 2009)
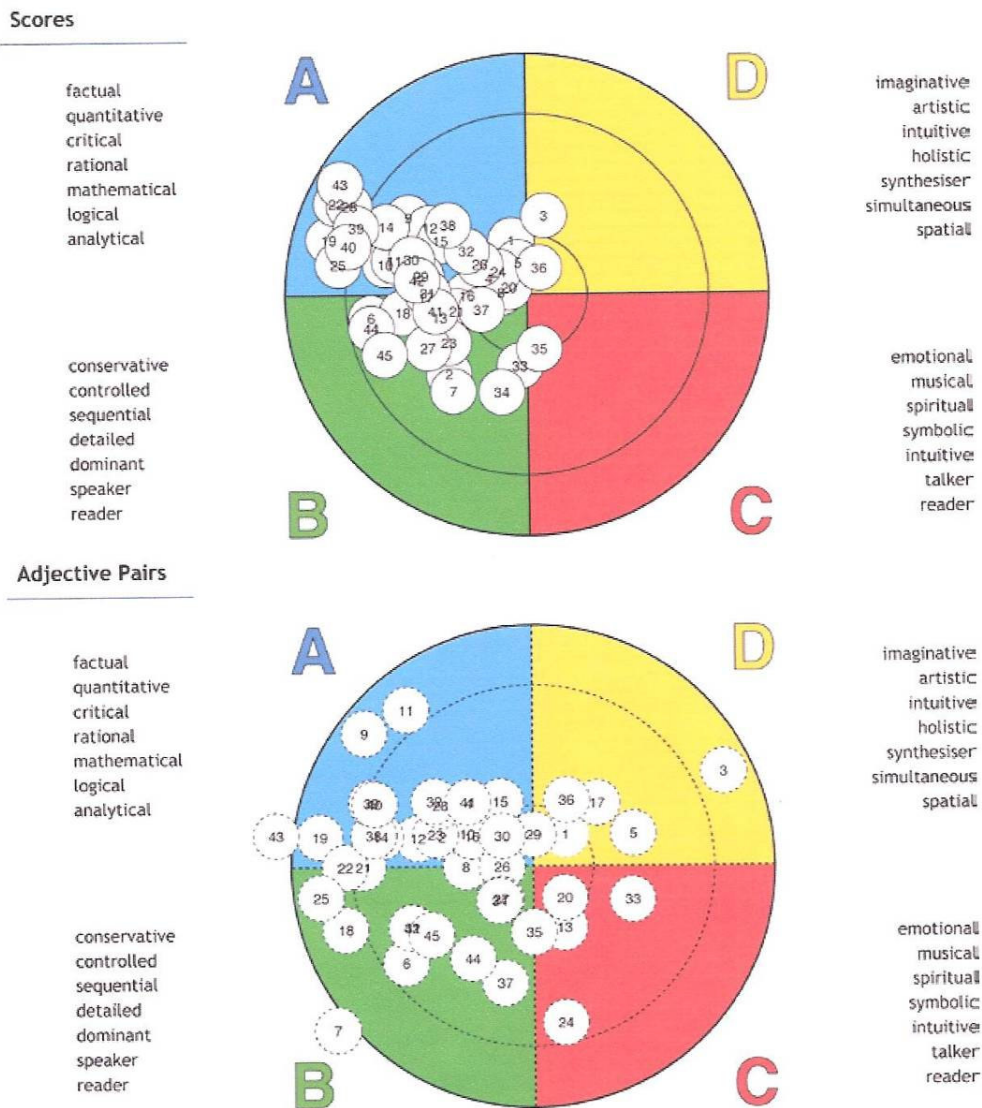
FIGURE 11: WORK ELEMENTS (Swart: TBI, 2009)

4.9 Key Descriptors

"From the key descriptors, it is quite clear that individuals chose words as their most descriptive from the A and B quadrants"
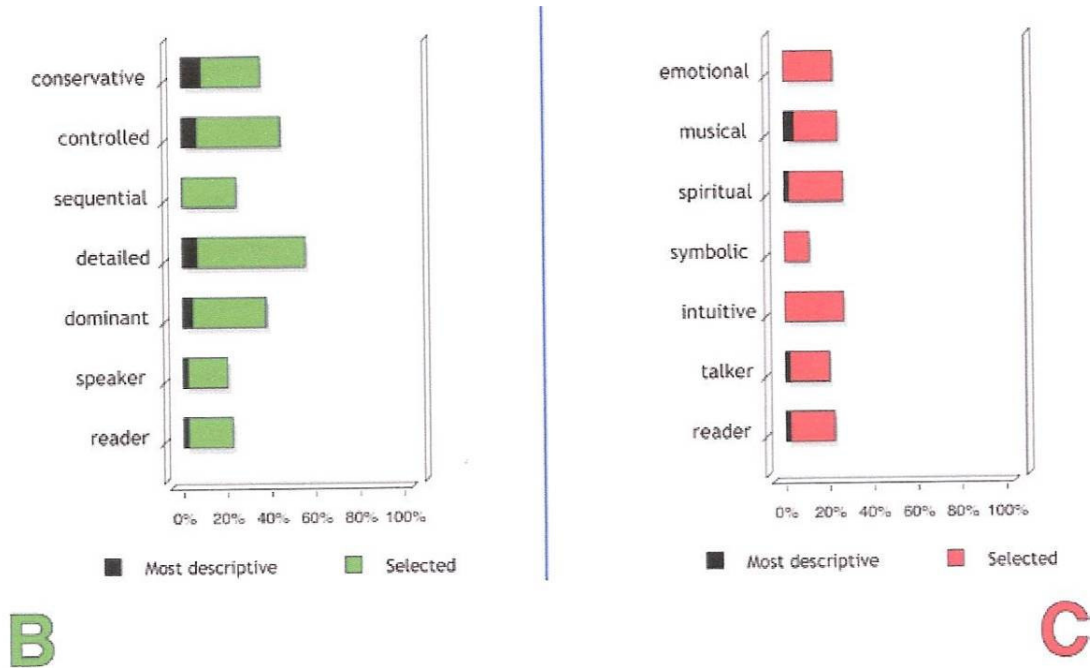
FIGURE 12: KEY DESCRIPTORS (Swart: TBI, 2009)

4.10. How will this team interact, working on a whole brain project?

"Referring to the process flow of preferences, one can clearly see that the team's thinking flows from the A quadrant, then moves to the B quadrant and finally to the C quadrant.

The following work elements scored the highest: problem solving, analytical and technical in quadrant A, and implementation, planning and organization in quadrant B.

Thus, working on a whole brain project, the team might remain in the blue and green quadrants and over-analyse everything. It is important for them to solve

67

the problem, plan and then implement it. Therefore, the yellow and red quadrants might be neglected, causing some team members to feel' left out' and that their values, feelings and new ideas are not considered. They might also lose track of the vision because their focus is more on the details." (Swart: TBI, 2009)

4.11. The team's greatest challenges

"When the 'team' debriefing session started, the facilitator asked "Mention 5 qualities that would make this company great" and was answered: **Vision: innovation :teamwork: competency and improved communication.**
If one had to put the HBDI® colours to these 5 attributes, it will look like this:

Quality	HBDI
Vision	Yellow
Innovation	Yellow
Teamwork	Red
Competency	Blue
Improved Communication	Red

FIGURE 13: TEAM'S GREATEST CHALLENGES (Swart: TBI, 2009)

From this, it is clear that the team has a need for more of the yellow and red quadrant qualities. Therefore, this is where the challenge would lie. They are unconsciously already aware of it, so now it is just about channeling their energy towards these quadrants. They can now consciously force themselves to look at things more holistically and take issues such as teamwork more seriously." (Swart: TBI, 2009)

4.12 What must the team pay attention to, to ensure success?

"The team realizes that they must pay more attention to their right brain quadrants, since this is the area where they lack, but also not to neglect their

strongest quadrants. The team must follow a 'whole-brain' approach to problem solving and projects so that it forces them not to neglect their least preferred quadrants. Whole brain thinking enhances the collaboration, productiveness, and performance of individuals and teams. (Swart: TBI, 2009)

4.13 Recommendations

As an AEL facilitator, I would recommend a follow-up session with this team where we can further enhance the use of the HBDI model. Even though it is an easy model to use, our human nature just returns us back to our old ways. Through AEL, the participants can actually experience the impact of using the model through activities and therefore use it more practically in the workplace.

4.14. Testing the hypothesis

This study shows clearly that given teams do not inherently possess the necessary compatibility. The profile indicates 'left brain' dominance, whereas a perfect team is theoretically' whole brained'- the 'team' is now aware of the shortcoming and has 'tools' to access and facilitate the information. This confirms the need in the industry for a scientific team building interventions. HBDI® identifies the specific areas the team needs to develop in order to be more efficient and with a precise AEL programme, it is possible to engrain new habits to counter 'challenges'.

Annexure two presents results of a priority behavioural scores questionnaire that was answered by the sample group prior to the HBDI® and AEL assessment, and once again after the first assessment phase was completed. The X's represent the results before hand and the O's after the intervention. The behavioural scores improve dramatically after undergoing the first phase of team building which illustrates the the participants found value in the process.

Chapter 5:

Sub-problem 4:

"Can effective communication maximise efficiency and minimise dispute amongst the team?"

"For all the talk of communication today, there's pitifully little of it going on. As Mark Twain once observed about the weather, many managers talk about communication but too few really do anything about it." (Clemmer, 2009)

5.1. Introduction: Purpose and audience

There are two communication aspects to consider within a focused organisation:

- **purpose**
- **audience**
-

"These govern and shape the nature of the messages we compose. Whatever the medium, tone, level of language, the style, and the emphasis, it must all suit the target audience in terms of clarity and ease of understanding." (Borcherds et al 2000:3)

In the 'team building' context, the **audience** constitutes the team members. The **purpose** is to facilitate communication: the completed the HBDI® process gives each team member, and, more importantly, the team leader, a comprehensive idea of how each individual is inclined to behave and react emotionally under a given set of circumstances.

"The starting point of communicating successfully is to consider the receiver of the message. The sender must choose appropriate language, the correct amount and level of information and the best medium possible to do so. Before structure and delivery of the message to the receiver, the sender takes into account-

- General education
- Communication skills
- Intelligence
- Knowledge of the subject
- Level of interest in the message
- Known attitudes to the subject and the sender
- Extent of desire to participate in the communication process
- Tendency to provide feedback – the sender must find a way to make it comfortable for the receiver to contribute – two heads thinking about something is better than one – the sender avoids dictating.
- General fears, insecurities and prejudices (deep seated anxieties)
- Cultural background
- Role in the organisation
- Any disabilities (e.g. Poor hearing)." (Borcherds et al 2000:3)

These measures obviate ambiguity and the receiver reacts in a desirable manner to the message.

5.2.   Communication

"This has to be the most critical trait that a project manager possesses. Think of the number of people that are looking for information about the project such as key stakeholders, managers, team members, and internal and external constituents. Communication provides public opportunities for the project manger to display that they are a cut above their peers." (Project manager planet, 2009)

71

Communicating project activities, and status, requires mastering the components for success, being:

- **Audience recognition** –recognise the 'level' of audience to ensure the content resonates, (an executive will require different information to member on the 'core team') and 'knowing' the audience contributes to creating a communication plan at the start of the project. The team's communication preferences determine the communication plan.
- **Determine mode** - Bombarded by emails, Facebook, Twitter, and other means of communication, project managers risk team members losing project messages- it is critical to determine the best way to communicate within the team. The best format verbally communicates thoughts with written communication confirming and reinforcing discussions.
- **Concise and clear** - Projects have many moving parts- each with a story to tell. It is important to determine what 'needs' to be communicated and to whom, it is then critical that this information is 'to the point'. Information that is concise and unambiguous details specific actions assigned to a member of the team and stipulates completion. A best practice is to provide the bulk of the message first, and then provide details after. Content received implies understanding thereof.
- **Honesty and Timeliness**– Each project has 'issues' and challenges. It is imperative that the 'team' and stakeholders discourage 'hidden agendas' as the project manager's credibility is at stake. Not all issues are critically, equal and the urgency behind each will vary, but timely 'team' communication is vital. (Clemmer, 2009)

5.3. Minimising dispute between team members

Team leaders face daily challenges that arise around conflicting personalities within teams and paying attention to potential for 'inner fighting' provides opportunity to re-channel negative energy into idea creation. Individual

perspectives contribute to problem solving - acknowledgement forges and strengthens bonds within teams. (Clemmer, 2009)

5.3.1 Reframing

Facilitators need ways to move through conflict and disagreements without judging or arbitrating. "Reframing" - inviting parties to see a disagreement in a different way - is a simple, useful way to resolve disputes without losing neutrality.

- **Interest-based reframing**

Changing conflict from talking about positions, to talking about the underlying interests reveals that, often, interests are compatible, even when positions are not; i.e. people engage in an intense argument, when their end goals are the same. In order to find the root of the problem, start conflict analysis from the end-point to process and understand the different solutions for achieving the end goal.

- **Fairness-based reframing**

The parties approach the conflict as an effort to obtain what is fair. This requires the group to define what fairness means and then work out what would be fair to all parties in the situation.

- **Integrative (or win-win) reframing**

Groups convince themselves that an issue is "win-lose" - one side must lose for the other to win. In win-win reframing, the facilitator helps parties redefine the problem in a win-win way- either by "…expanding the resources from which they are drawing or redefining what they want so that everyone can have what they want at the same time, even with limited resources". (Quinn, 2009)

5.4. Creating Norms

Workplace situations exasperate when a team experiences routine or entrenched conflict. Although a normal phase of team development, it disrupts productivity and leaves members feeling frustrated and unheard.

Typically, there are many reasons for team conflict but a first step in helping teams tackle ineffective behavior is encouraging making their feelings known. Feelings brought to light constructively provide an opportunity for the team to become more effective. Feelings of aggravation and frustration require suppression- no one is going to listen an emotionally volatile person- with an aggressive strategy shutting down introvert personalities down entirely and 'firing up' domineering members.

Approaching a team requires a sense of calm and control. The following guidelines assist is resolving disputes:

- What has the leader <u>observed?</u>
(I.e. *a team member presented an idea and instead of acknowledging, the rest of the team went about his or her own business*)

- What does the leader <u>imagine</u> is going on?
(i.e. *the team has good intentions, but when' push comes to shove' the team places their own agendas first.*)

- How this behaviour has had an <u>impact?</u>
(I.e. *the team is feeling frustrated because individuals feel unheard.*)

- Proposed <u>remedy</u>
(i.e. *listen first, then repeat back what was interpreted; the speaker feels 'support' as ideas are understood*)

- <u>Silence</u> after this intervention

(Let the team respond. Do others agree with no, or a sarcastic, response? Negative feedback is not personal in a learning process-over emotional reactions are significant set backs. Repeated feedback ensures properly understood the perspective).

"All teams experience conflict and its normal for teams to enter and fall back into conflict during development. Understanding this, and proactively taking time to voice opinions and develop norms, ensures the team a healthy future." (Goldman, 2009)

5.5. How to identify true issues and get the team to share

The real reasons hindering team efficiency are 'put on the table' no matter what the repercussions. People too scared to make 'difficult decisions' are still responsible and accountable- ensuring that everyone's best interests are protected. Failing to declare issues blocks progress and team leaders recognise the power unresolved issues gain unless confronted- symptomatically:

- Real conversations happen in hallways or offices after meetings.

- Team members complacently agree to consensus at meetings – then go off and do 'their own thing' - not voicing disagreements for fear losing 'team player' status.

- Commitments defaults and missing deadlines- team member's 'whine' when giving 'real' opinions.

- Once a team leader gives an opinion, the rest of the team stays quiet or falls in line behind the executive.

- Sudden surprises often come "out of the blue" – especially from within the organisation. The team leader is frequently surprised to see a simmering problem suddenly erupt into a full -blown crisis.

- The team leader dominates meetings and most conversations. (Clemmer, 2009)

5.6. Facilitating group conversations

Valued conversations reward all involved; individuals should take responsibility for the course of the conversation without being pushy or "in charge."

Guidelines to facilitate group conversations, with 'polite' and 'curious' versus a 'commanding' perspective voiced when making an intervention, suggested by Davis (2009):

- Involve everybody

Group conversations often turn into monologues for the most vocal people in the group- others politely allow the monopoly although uncomfortable- validate the speaker and then ask someone else for input.

- Interrupt when appropriate

A leader may have to interrupt people to redirect conversation. 'Over talkers' actually expect interruptions, as this is the only way they can experience a dialogue.

- Listen actively

Listening is the key to all good conversations. Most people are thinking of their response while others are talking. Good conversations require staying present and paying attention when others, and ourselves, are speaking. Listening closely, equips better responses.

- Stay on track but be flexible

Be flexible and willing to move from one subject to the next, but beware of leaving incomplete ideas hanging, all topics discussed must fit together into a

coherent whole. This is particularly common in conversations where poor listening and unconscious interruptions occur.

If the conversation shifts to a new subject, when an idea is incomplete, politely interrupt and ask if group is finished with the idea. Intervening to get completion often has the effect of drawing others into deeper listening and better dialogue. Staying with a subject long enough to express ourselves around it increases team harmony.

5.7. Meetings

Meetings are more important than ever in increasingly complex and interconnected workplaces. Research shows that when meetings are effective teams make better decisions than individually.

Among the basics are establishing an agenda that outlines the meeting's purpose. Is the goal to solve a problem, seek input, or distribute information? The purpose of a meeting is for the team to arrive at ideas, solutions and make plans and decisions.

 A good meeting is:

- **Efficient** – produces a result.
- **Positive and fun** - People enjoy themselves and look forward to the next meeting.
- **Participative** - Everyone participates equally, instead of just zoning out or faking agreement.
- **Open** - People say what they really think.
- **Creative** - Thinking goes beyond the usual and into new territory. (Davis, 2009)

Dr Chris Heunis of the Team Building Institute offered the following insights when interviewed (5th March 2009):

- Open the meeting with a positive round

Psychological experiments show the way a meeting starts sets the tone for the whole meeting. If the meeting starts out with something positive, the rest of the meeting is more likely to be fun.

Another approach is called the 'check-in'; this technique involves asking each person in the team what sort of mental frame they are in presently (i.e. Do they have any personal issues, stress at work etc.). This affords each member the opportunity to understand responses and offer their support to help the individual and ensures the team operates to its full potential.

Although interpreted as focusing on 'negativity', it removes ambiguity and enables resolution of problems 'placed on the table', making it possible for the 'team' to move forward positively.

- Interrupt the meeting regularly

People want to make the most of their meeting time. It is imperative to use the time to clarify all agenda's and set targets etc. It is tempting to skip breaks to achieve more in the meeting, however the flow needs to be interrupted frequently – it helps people concentrate and keeps proceedings informal.

First of all: A five-minute break every hour is mandatory! No meeting is productive if half the people present are seriously in need of a restroom visit.

Second: Every half hour, do a quick two-minute creative break of some kind. This may involve joke telling for example. This will relax and enable members to regain focus. (Heunis, 2009)

5.7.1 Advantages to table-less meetings

"What purpose do tables really serve at a meeting, except to give you a place to put down your coffee cup and to keep your head from hitting the floor when you

fall asleep? Change the format of meetings to a circle of chairs- or semi-circle if charts etc are needed" (Kjerulf, 2009). This allows:

- People to move around, instead of 'locked' into one sitting position.
- Communication flows better because you can see the entire person, not just from the chest up.
- Participation increases, because people are unable to 'hide' during the meeting.
- People are closer together.
- Seating people in a circle signals that everyone is democratic- unlike the normal meeting table, where the boss sits at the head of the table. (Kjerulf, 2009)

Clemmer (2009) ascertains that "effective teams navigate through setbacks, misdirection and negativity that cloud most organisations in mediocrity or low morale" refusing to be "victims of weak senior leadership, cynical colleagues, flawed organisational processes and demanding customers or poor suppliers." At meetings, actions are summarised to ensure follow-through. High performing teams frequently review and improve meeting processes, develop rules for debating issues, make decisions and resolve conflicts. Guidelines stipulate unacceptable behavior - violations of ground rules face disciplinary action. (Kjerulf, 2009)

Time in meetings is constantly increasing and Kjerwulf (2009) says, "Bad meetings suck the life force out of people, leaving them tired and unhappy at work." Bad meetings lead to bad decisions, reduce motivation and create conflict.

Teams want fun, positive meetings, where participants 'speak their mind' to generate and develop new ideas within efficient time usage.

5.8   Summary and Conclusion

"In today's information age, communication is multi-directional and purposeful...it goes anywhere and goes where it's needed. Leaders must ensure that the old fashioned habits of hierarchical communication need to be disregarded and all team participants must feel comfortable to openly discuss any issues with the leader, but in a respectful and orderly manner purely expressing an opinion and generating ideas". (Garner, 2009)

Effective communication captures the listener's attention and the message is absorbed. Information is unambiguous and transfers efficiently through communication lines. Identifying goals and taking action to pursue them 'on time' eliminates unnecessary delays.

Each team member must feel confident to speak and know that he has the respect of the group- eliminating the tendency for underlying issues (a hindrance to success) to develop. Transparency defines the team.

5.9. Testing the Hypothesis

The hypothesis is correct because effective communication brings the team together as a single coherent entity, utilising the array of skills each individual brings to the table to solve problems, develop strategies and make decisions that are thoroughly investigated to optimise the project.

Chapter 6

Sub-problem 5

"Does leadership determine the measure of success of the team?"

6.1. Introduction

"It takes more than just experience and execution to bring in successful projects."
(Ponce, 2009)

"Leaders are people oriented, whereas managers are task oriented.
Leaders inspire, whereas managers organise." (Callaway, 2009)

"I deliver my projects on time and on budget yet I never get selected for the most important assignments." Ponce (2009) quotes successful, skilled and experienced managers who never 'shine', begging the question, "What are the qualities of a leader?"

"The most successful leaders realise that, in addition to delivering on time and on budget, that they must successfully deliver on the 'people' side of the project." (Ponce, 2009)

The perception of team members, stakeholders, and management ultimately determines the success of a project and the 'softer-side' of management, people, is an evolving concept.

Organisations differ on the value of 'soft skills' but traits that define an 'elite' leader (and are valued across organisations), include intangible qualities, namely;

- **Execution**
- **Communication**
- **Leadership**
- **Experience**
- **Influence**
- **Motivation**

Every leader's job description is **'execution'** - 'team' and management see this as the foundation of success: where customised, flexible, methodology and management tools meet the needs of each project and the people working on it.

A critical component 'to execute' is organisation. Leaders meet expectations with strong organisation- of thought, information, planning, communication and mitigation. Simplicity is the key to organisation with requirements prioritised and focused on a daily, or even hourly, 'needs' basis- depending on the project demands. Over analysis overwhelms managers- preventing timely decisions that 'bottleneck' decisions and adversely affect the team's ability 'to execute'. (Wikipedia, 2009)

6.2. Leadership

"The matrix nature of the role doesn't lend itself to preordained leadership. The mantle of leadership is earned. Being able to have the vision to drive a project and team to a successful completion, the foresight and organisation to head off problems that can jeopardise the project, taking accountability for all aspects of the project, and presenting the team in the best light or providing them opportunities to do it themselves are all examples of strong day to day leadership". (Ponce, 2008)

Leaders interact with many different people at many different levels and are proactive by example, not passive- the project team and management require action and deeds, not good written reports." (Wikipedia, 2009)

6.2.1. Theories of leadership

Leadership is the "…process of social influence in which one person is able to enlist the aid and support of others in the accomplishment of a common task." (Ponce, 2009)

Genentech's Keith (2009) avers leadership as "….ultimately about creating a way for people to contribute to making something extraordinary happen."

Academia theorises leadership **traits** as situational interaction, function, behaviour, power, vision and values, charisma, and intelligence. (Wikipedia, 2009)

6.2.1.1. Trait theory

Trait theory advocates behaviour types and personality tendencies with effective leadership. Thomas Carlyle (1841), a pioneer of trait theory, identified the talents, skills and physical characteristics of men who rose to power. Ronald Heifetz (1994) traces the' trait theory' to the nineteenth-century tradition of associating the history of society to that of great men. Proponents list leadership qualities, assuming certain traits or characteristics will tend to lead to successful leadership. (Wikipedia: 2009)

Kirkpatrick and Locke (1991) demonstrate key leader traits as; **drive** (a broad term including achievement, motivation, ambition, energy, tenacity, and initiative): **motivation** (the desire to lead but not to seek power as an end in itself): **honesty**, **integrity**, **self-confidence** (associated with emotional stability): **cognitive ability** and business **knowledge**. According to their research, "there is less clear evidence for traits such as charisma, creativity and flexibility."

Trait theory has 'intuitive' appeal but critics point out difficulties in proving the principle. The 'strongest' theory identifies 'leadership characteristics' as innate and accordingly leaders are 'born', not 'made'.

"On this reading of the theory, leadership development involves identifying and measuring leadership qualities, screening potential leaders from non-leaders, then training those with potential."(Kirkpatrick and Locke: 1991)

6.2.1.2. Leadership styles

In response to criticism of the' trait' approach, 'leadership' evolved as a set of behaviors. Evaluating successful leaders, David McClelland (1994), researched skills, not as a set of ' traits', but as "a pattern of motives" claiming successful leaders "… tend to have a high need for power, a low need for affiliation, and a high level of ", what he called, "activity inhibition". (Wikipedia, 2009)

Lewin, Lipitt and White, (1939), developed early research on leadership styles-evaluating performance levels, of eleven-year-old boys, under different work climates saying; "…in each, the leader exercised his influence regarding the type of group decision making, praise and criticism (feedback), and the management of the group tasks (project management)", according three styles: **authoritarian**, **democratic** and **laissez-faire**:

-   **Authoritarian climates** "…characterise leaders who make decisions alone, demand strict compliance to orders, and dictate each step taken; future steps…uncertain to a large degree. The leader is not necessarily hostile but is aloof from participation in work and commonly offers personal praise and criticism for the work done." (Lewin, Lipitt and White, 1939)

-   **Democratic climates** "…characterise collective decision processes, assisted by the leader. Before accomplishing tasks, perspectives from group discussion and technical advice from a leader are 'collected'.

Member's choices collectively decide the division of labor. Praise and criticism are objective, fact minded and given by a group member not necessarily having participated extensively in the actual work." (Lewin, Lipitt and White, 1939)

- **Laissez faire climates** "…give freedom to the group for policy determination without any participation from the leader. The leader remains uninvolved in work decisions unless needed, does not participate in the division of labor, and very infrequently gives praise." (Lewin, Lipitt and White, 1939)

6.2.1.3. Situational and Contingency Theories

"The times produce the person and not the other way around. What an individual actually does when acting as a leader is largely dependent upon characteristics of the situation in which he functions." (Herbert Spencer: 1884)

Spencer's theory assumes different situations call for different characteristics; accordingly, no single 'optimal' psychographic leader profile exists and he extrapolates, "…the **authoritarian** leadership style… is approved in periods of crisis but fails to win the "hearts and minds" of their followers in the day-to-day management. The **democratic** leadership style is more adequate in situations that require consensus building and finally, the **laissez faire** leadership style is appreciated by the degree of freedom it provides, but as the leader does not "take charge", he can be perceived as a failure in protracted or thorny organisational problems. "

Recently theorists re-defined styles of leadership contingent to the 'situation' and 'contingency' theory:

- The **Fiedler** model bases effectiveness on 'situational contingency'- a result of 'interacting leadership style' and 'situational favourableness' (called 'situational control'). Fiedler defines leaders as "relationship or

task-oriented", averring, '"no ideal leader"; both styles work if orientation 'fits' the situation, hence,"…when there is a good leader-member relation, a highly structured task, and high leader position power, the situation is a 'favourable situation'". Fiedler found 'task-oriented' leaders more effective in favourable and unfavourable situations, whereas 'relationship-oriented' leaders performed best in situations with intermediate favourability. (Wikipedia, 2009)

- **Victor Vroom,** with Yetton (1973**)** and Jago (1988), described leadership situations"… normal decision models" connecting leadership styles to 'situational variables'- i.e. identifying approaches suitable to situation. 'Situational contingency' supports "…the…manager could rely on different group decision- making approaches depending on the attributes of each situation." (Wikipedia, 2009)

- The '**path-goal**' leadership model (House :1971), (based on Vroom et al's 'expectancy theory'), is: "the meta proposition that leaders, to be effective, engage in behaviours that complement subordinates' environments and abilities in a manner that compensates for deficiencies and is instrumental to subordinate satisfaction and individual and work unit performance." (Wikipedia, 2009) The theory identifies four behaviours, **achievement-oriented, directive, participative** and **supportive,** 'contingent' to environment and 'follower' characteristics. Unlike Fiedler, the model finds the behaviours fluid; leaders "adopt any depending on situational demands." Classified as 'contingency' and 'transactional' leadership theory, the path-goal model depends on 'circumstance' and emphasises reciprocal behaviour between leader and followers. (Wikipedia, 2009)

- **'Situational'** leadership (Hersey and Blanchard: 1975) models four 'leadership-styles' and 'follower-development'. The model posits effective 'leadership-style' appropriate to the level of 'follower ship-development'

where "leadership behaviour is a function not only leader characteristics", but of followers too. (Wikipedia, 2009)

6.2.1.4. Functional theory

'Functional' leadership (Hackman, Walton, 1986; McGrath, 1962) facilitates "…addressing specific leader behaviours expected to contribute to team effectiveness", arguing, "…leader's main job is to see that whatever is necessary to group needs is taken care of; thus, a leader can be said to have done their job well when they have contributed to group effectiveness and cohesion". (Fleishman et al., 1991; Hackman, Wageman, 2005; Hackman, Walton, 1986) (Wikipedia, 2009)

In 2001, Zaccaro, Rittman, & Marks applied 'functional leadership' theory to 'team leadership' based on previous research. (Hackman, Walton: 1986; Kozlowski et al: 1996) Further research, (extrapolated by Hackman, Wageman, 2005: Morgeson 2005: Klein, Zeigert, Knight, Xiao, 2006) revealed five broad functions leaders provide to promote team 'effectiveness':

- monitor environment

- organise subordinate activities

- teach and coach subordinates

- motivate others

- intervene actively in the group's work (Summary: Internet: Wikipedia, 2009)

Various leadership 'behaviours' facilitate these functions; Fleishman (1953) observed, "…subordinates perceive supervisors' behaviour in terms of two broad category structures" namely '**consideration**' and '**initiating**'.

- **Consideration** includes behaviour forging effective relationships. Examples include "…showing concern for a subordinate or acting in a supportive manner towards others."

- **Initiating** focuses task to accomplish, including "…role clarification, setting performance standards, and holding subordinates accountable…".(Wikipedia, 2009)

6.2.1.5. Transactional and transformational theories

The **transactional leader** (Burns, 1978) "has power to perform certain tasks and reward or punish for the team's performance." It gives opportunity to lead and the group 'follows' to, "...accomplish a predetermined goal in exchange for something else." (Wikipedia: 2009) 'Power' enables leaders to "…evaluate, correct and train subordinates when productivity is not up to the desired level and reward effectiveness." (Wikipedia, 2009)

The **transformational leader** (Burns, 2008) motivates effective and efficient teams with communication the basis for goal achievement by focusing the group on the final, desired outcome or 'goal attainment'.

 "The leader is highly visible and uses chain of command to get the 'job' done. Transformational leaders focus on the big picture, surrounded by people who take care of the details. The leader is always looking for ideas that move the organisation to reach the company's vision." (Wikipedia, 2009)

6.2.1.6. Leadership and Emotions

Leadership is an emotion-laden process entwined with social influence. In an organisation, leader 'mood' affects the group swaying:

- **Mood of individuals** - Group members with 'positive' leaders mirror, "more positive than with leaders in a negative mood." Leaders transmit 'moods' to group members by '**mood contagion**'. (Wikipedia, 2009)

- **Affective tone**– "…group affective tone represents the consistent or homogeneous affective reactions within a group. Group affective tone is an aggregate of the moods of the individual members of the group and refers to mood at the group level of analysis. Groups with leaders in a positive mood have a more positive affective tone than do groups with leaders in a negative mood." (Wikipedia, 2009)

- **Group processes** - encompass coordination, effort expenditure and task strategy. Public 'mood' affects groups- expressing 'moods' sends 'signals' and leaders 'signal' goals, intentions, and attitudes through 'moods'. Positive moods signal satisfactory progress toward goals and members respond "…cognitively and behaviourally in ways reflected in the group processes". (Wikipedia, 2009)

Mood and behaviour influences employee 'positive and negative' emotions and leaders evoke emotional response by 'shaping' the workplace with feedback, task allocation and resource distribution.

Successful leaders consider an employee's 'emotional state' –response influences productivity and behaviour. **Emotional intelligence**,"... the ability to understand and manage moods and emotions in the self and others…," contributes to effective leadership in teams. "Leadership is about being responsible." (Wikipedia, 2009)

6.3. Experience

Experience from past projects, (whether a 'success' or 'failure'), provides invaluable insight to teams and stakeholders. Experience manifests in preparation where time invested pays dividends in team confidence. Lessons learned from 'past experiences' alert teams to potential, avoidable problems. (Wikipedia, 2009)

6.4. Influence

Internal and external components require leader influence "…in good times and in bad" encouraging 'team', key stakeholders and periphery, project players. The "outstanding" leader acts as, "… therapist, relationship manager, sales person, good cop, bad cop, coach, and manager." (Wikipedia, 2009) Influence covers:

- **Know the 'audience** '– As in **communication**, leaders 'know' the "players on the team" and potentially helpful 'outsiders': finding 'proponents' and not an 'opponents' leaders ensure 'party agenda' 'fits' with team and project requirements and recognise the impact 'poor fit' has.
- **Politics** – 'Office politics' and 'competing agendas' derail effective leadership; barriers ease by aligning sponsors, stakeholders and management with regular 'checks' outside of meetings (throughout project life) to validate progress. Awareness of 'politically' driven 'obstacles' allows leverage to break them down.
- **'Burning Bridges'** – Leaders nurture relationships to provide future 'dividends', avoiding alienation of individuals or organisations "in the heat of the moment." Impersonal criticism, 'negative comments or inaction,' reflect projects as, "… bigger than any one single person." (Ponce, 2009)

6.5. Motivation

Project teams are diverse, members may reside in different time zones, and teams need motivation to "move as one." Motivation focuses and rewards accomplished objectives. Genuine, balanced motivation is a powerful tool to focus individuals and teams; achieved by 'rewarding' 'efforts' throughout. Detailed attention, (thank you, team lunch, work gathering) recognises the 'heavy lifters.'" (Ponce, 2009)

6.6. Summary and Conclusion

Summarised; leaders lead by example.

Leaders do not undermine the confidence of fellow-workers; they encourage and mentor them to successful careers. Leaders perform obligations honourably and expertly to gain **trust** to motivate achievement of a common goal. Trust and integrity engender success and a 'feeling of belonging'. Leadership adapts to ever changing 'team-dynamics' as well 'circumstance' to maintain and improve relationships in 'good and bad times'.

6.7. Testing of the Hypothesis

Relevant research proves that leadership determines the success of the team. Poor leaders produce poor teams.

The hypothesis validates on the evidence that expert leadership facilitates effective coordination and communication between members of the team, building trust and creating a dynamic working environment- the intervention is pivotal to achieving goals.

Chapter 7:

 Conclusion:

7.1.   Introduction

The main problem:

"How can teambuilding make professional teams in the construction industry more efficient?

Business often misunderstands teambuilding, placing emphasis on fun and vaguely exploring the scientific aspect. Programmes are expensive, but necessary, as worthwhile intervention keeps organisations in touch with professional service delivery.

Conventional teams comprise individuals from the same organisation with similar roles. Professional team composition in the construction industry is very different- consultants make up the 'team' from different disciplines and represent an array of companies who, (with quantative values, work ethic and priorities), bring internalised lack of coherence and focus.

 These 'obstacles' are substantial in the teambuilding sense and the study determines whether team building is a viable intervention in the professional team. Successful 'teams' align goals and objectives and willingly 'buy in' to a common culture of respect and equality.

Summarising the sub-problems shows that teambuilding, as part of project preparation, will streamline the alignment of parties involved, and prove the main problem.

7.2. Summary of Sub-problems

7.2.1 Sub-problem 1

"Can the "Herrmann Brain Dominance Instrument" (HBDI®) help team members to appreciate diverse personality, thought and logic processes?"

The proven instrument is an effective method for individuals to explore and understand their psyche. Successful teams and individuals take personality and preference into consideration and understand role definition.

HBDI® enables teams to embrace multi-cultural environments and appreciate individualism as a solid entity- the common objective provides a platform for rapid decision-making, effective conflict management and, consequently, improved performance.

HBDI® uses preferential thinking to provide a comprehensive indication of how people interact, prefer to operate, and work; understood people cooperate and listen. 'Experience' and 'education' assist individuals develop, build and reinforce relationships in the team.

7.2.2 Sub-problem 2

"Can Adventurous Experiential Learning (AEL) be used as a tool to build strong relationships within the team?"

Adventurous Experiential Learning synergises with HBDI® to identify 'change-thinking' and offer practical implementation by engraining principles to develop the team into a 'competent machine'.

The outcomes of adventure activities are inherently 'uncertain' and the programmes encourage 'competence against risks' to resolve doubt. AEL defines 'purpose for change'; achieved through recreation, education, development and redirection.

Participants experience satisfaction achieving programmed 'team-goals' that create genuine, 'common ground' for learning and help team members identify and acknowledge capability of working successfully together.

AEL is an effective tool to develop intrinsically strong relationships, mould a 'unit' and increase efficiency.

7.2.3 Sub-problem 3

"Is a typical project team inherently compatible and if not, can they be made to be compatible?"

The problem illustrates 'normal' teams lacking full functionality and extrapolates teambuilding to provide solutions. It reasons, therefore, that diverse 'professional' teams have greater need for teambuilding intervention.

The HBDI® team profile demonstrates incompetence in the green and red quadrants- illustrating the 'team' needs to be more organised and interpersonal.

The pre-process interviews show the project team perceive problems and need practical solutions. The implementation strategy includes extensive socialisation games to improve communication and increase 'comfort levels' and use of 'high ropes' to improve sequential skills.

The post-program questionnaire confirms the success of the intervention and reinforces the first two sub-problems.

7.2.4 Sub-problem 4

"Can effective communication maximise efficiency and minimise dispute amongst the team?"

The chapter reinforces the importance of communication, the concept management can 'make-or-break' the team. The foundation of HBDI® and AEL rests on transparent, accurate and meaningful communication. Effective communicators manage difficult personalities with respect and recognise potential conflict enabling them to mitigate conflict before it happens.

7.2.5 Sub-problem 5:

"Does leadership determine the measure of success of the team?"

Leaders constantly remind the 'team' of values and ethics - leading by example. Leaders focus, prioritise and assign the 'right person' for the 'right task', avoid micro-management. They implement principles successfully using clear communication and reasoned leadership.

A leader guides a team through 'good and bad times' and provides resistance to negative attitudes to focus on the identified goals. Leaders command respect and without sound leadership and communication the interventions of HBDI®, AEL are futile.

7.3 Conclusion

The sub-problems encompass the concepts surrounding teambuilding. The assumption is, with a proven outcome to each aspect, that team building, with correct application, improves the performance of project teams in the construction industry.

The correct hypothesis of each sub-problem substantiates and answers the question, "How can teambuilding make professional teams in the construction industry more efficient?"

The main problem is resolved as the empirical evidence shows that a combination of recreation and education directs the team, and individuals, on the right path for success because 'fun-learning' is exhilarating. Team building is a proven and effective technique to reinforce principles, improve willingness and information retention. Reflecting on a positive intervention allows the individual to 'buy in' to the experience and strive toward 'realisation'.

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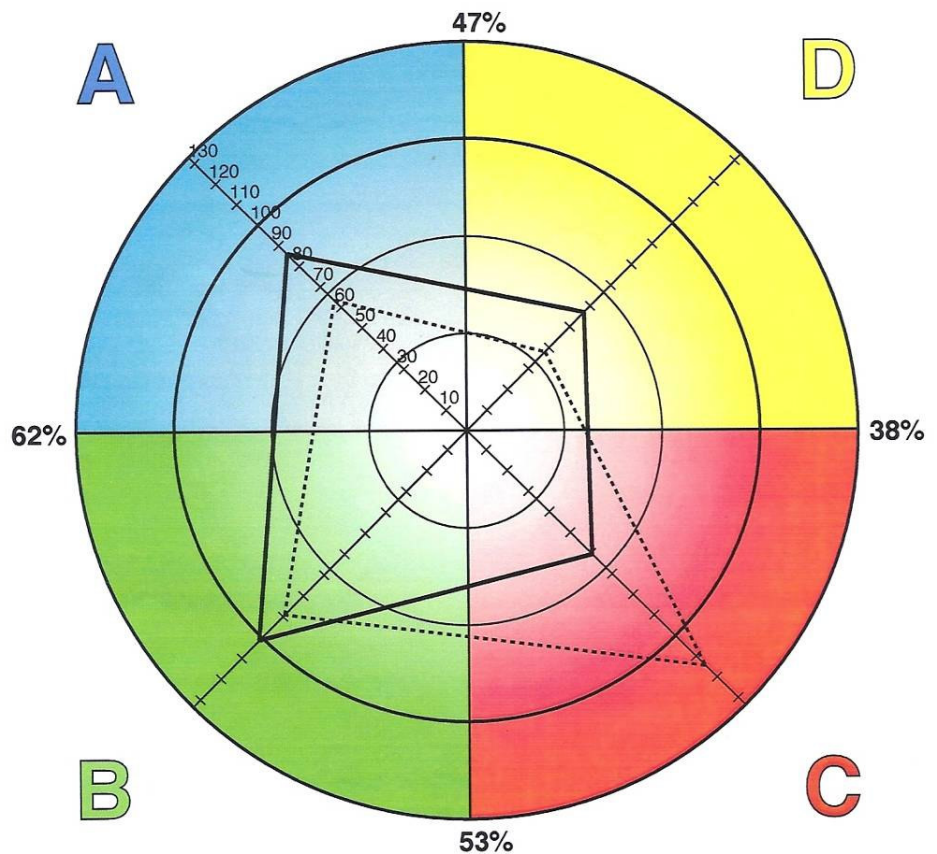
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HBDI®
Profile Overlay

DUNCAN GIBBISON

Quadrant :	A	B	C	D
Preference Code :	1	1	2	2
Adjective Pairs :	5	7	9	3
Profile Scores :	86	101	60	57

HERRMANN BRAIN DOMINANCE INSTRUMENT
DATA SUMMARY

id: HRNU8542

NAME	DUNCAN GIBBISON	GENDER	M	GROUP	92187
OCCUPATION	Quantity Surveyor			DATE	09 03 2009

	COLUMN A UPPER LEFT	COLUMN B LOWER LEFT	COLUMN C LOWER RIGHT	COLUMN D UPPER RIGHT
PROFILE SCORES	86	101	60	57
PREFERENCE CODE	1	1	2	2
ADJECTIVE PAIRS	5	7	9	3

KEY DESCRIPTORS
(*MOST DESCRIPTIVE)

COLUMN A		COLUMN B		COLUMN C		COLUMN D	
factual	x	conservative		emotional		imaginative	
quantitative	x	controlled	x	musical		artistic	
critical		sequential		spiritual		intuitive	
rational		detailed	x	symbolic		holistic	x
mathematical		dominant		intuitive		synthesiser	
logical	x	speaker	*	talker	*	simultaneous	
analytical	x	reader		reader		spatial	

WORK ELEMENTS

COLUMN A		COLUMN B		COLUMN C		COLUMN D	
analytical	4	organisation	5	teaching	2	integration	4
technical	3	planning	5	writing	4	conceptualising	3
problem solving	2	administrative	3	expressing	5	creative	4
financial	2	implementation	3	interpersonal	5	innovating	2

ADOLESCENT EDUCATION
EDUCATIONAL FOCUS
OCCUPATION
HOBBIES

	primarily right	right some left	mixed	left some right	primarily left
HAND DOMINANCE	X				

	day		equal		night
ENERGY LEVEL			X		

	none		some		frequent
MOTION SICKNESS				X	

INTROVERT/EXTROVERT	introverted									extroverted X

Your HBDI® Profile Sheet provides you with a visual plot of your thinking style preferences.
The Data Summary Sheet gives a breakdown of what quadrant many of the questions fall into.
This explanation page will describe each of the quadrants in descending order of your preference :

<div align="center">B > A > C > D</div>

The thinking style quadrant you most prefer, based upon your responses to the HBDI® Survey, is the B Quadrant, with a value of 101.
Descriptors in this thinking style which you selected are Detailed and Controlled, with Speaker representing your 'Key Descriptor' - the one most descriptive of you. These descriptors represent a general overview of your mental preferences in day-to-day life.
Work Elements you strongly relate to in this quadrant include Organisation and Planning. These Elements reflect your mental preferences at work. Work preferences may align completely with general preferences, or they may stem from situations unique to one's working environment.
In the forced-choice, Adjective Pairs section of the Survey, 29% of your responses registered in the B Quadrant. For comparison purposes, your B Quadrant Profile Score represents 33% of your total Profile.

By only a slight margin, your next most preferred is the A Quadrant, with 86 points. In this thinking style, you selected Logical, Analytical, Quantitative and Factual as descriptive of you. Work Elements you identified as ones you do well include Analytical. In Adjective Pairs 21% of your responses registered in the A Quadrant, compared to 28% of your overall Profile.

Your next most preferred is the C Quadrant, with 60 points. In this quadrant you selected Talker as your 'Key Descriptor' - the one most descriptive of you. Work Elements you identified as ones you do well include Writing, Expressing and Interpersonal. 38% of your Adjective Pairs responses fell in the C Quadrant, compared to 20% of your Profile.

Your least preferred quadrant, based upon your Survey responses, is the D Quadrant, with a value of 57. In this quadrant you selected Holistic as characteristic of you. 13% of your Adjective Pairs responses fell in the D Quadrant, compared to 19% of your Profile.

The Adjective Pairs result tells us something about how we react when under pressure. This may or may not be consistent with our general behaviour. The distribution of your responses to these questions into the A, B, C and D Quadrants was 5 - 7 - 9 - 3 respectively. This distribution is noticeably different from your profile (as you may have noticed in the percentage comparisons above). This is neither a good nor bad quality, but it suggests that you may respond quite differently when under pressure than at other times. Some people with this characteristic also find that people see them more like the Adjective Pair distribution than the Profile.

<div align="center">103</div>

The Preference Code is a categorization of profiles. It can be helpful in identifying generally similar Profile configurations.

Your profile is double dominant in the same hemisphere.

Double dominant profiles experience an internal integrated coherence in the same fashion that single dominant profiles do. In both left and right double dominant profiles, the two quadrants tend to reinforce each other. The logical, rational processes of the A quadrant reinforce the structural and procedural qualities of the B quadrant. Likewise, the visual imaginative approaches of the D quadrant are supported by the expressive, sensory elements of the C quadrant. As opposing modes, double dominant left might perceive their right counterpart as unrealistic an unfocused. In both cases, these individuals will benefit from a greater appreciation of their mental opposites, not only to improve their communication and relationships, but also to appreciate mental processes very different than their own, allowing them to more effectively "cross the bridge" between hemispheres.

Your preference code is 1122 :

This is a double dominant profile with primaries in the Left mode — Upper Left A and Lower Left B quadrants. It is the second most common profile in the general population, representing 16 percent, and the most common profile for males, representing 21 percent. The profile is characterized by a logical, analytic, technical orientation, and is effective in rational problem solving from the Upper Left A quadrant. Lower Left B quadrant preferences include planning, organizing, implementing and administrative activities. In this profile, the processing modes of Upper Left A and Lower Left B would clearly be the most preferred, and the interpersonal, emotional, and spiritual modes of Lower Right C and the holistic, creative, and synthesizing modes of Upper Right D would be at the secondary level, yet functional.
This profile is typical of those occupations in technical fields, such as engineering and manufacturing, financial positions, middle managers, and in general, those positions for which left mode processing is clearly most important, and the right mode processing being necessary, yet secondary.

Most comfortable communication approaches may include :
Brief, clear and precise info - Well articulated ideas presented in a logical format - Step by step unfolding of the topic - Explanation in writing.

The most natural problem solving strategies would include :
Factual analysis - Research - Logic - Re-engineering - Step by step process - Time lines - Organization.

To take a decision, a person with this profile may ask :
Do I have all the facts? Will I be in control?

104