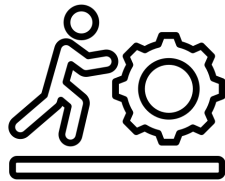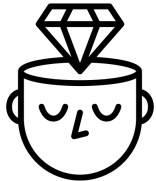# Thinking Preferences

NCEAS Learning Hub

for

Delta Science Program

August 2023

Thinking preferences and team science

Everyone thinks differently. The way individuals think guides the way they work, and the way groups of individuals think guides how teams work.

Understanding thinking preferences facilitates effective collaboration and team work.

Whole Brain Thinking System

The Whole Brain Model, developed by Ned Herrmann, builds upon early conceptualizations of brain functioning. For example, the left and right hemispheres were thought to be associated with different types of information processing while our neocortex and limbic system would regulate different functions and behaviours.

Left Brain:
Analytical / Systematic
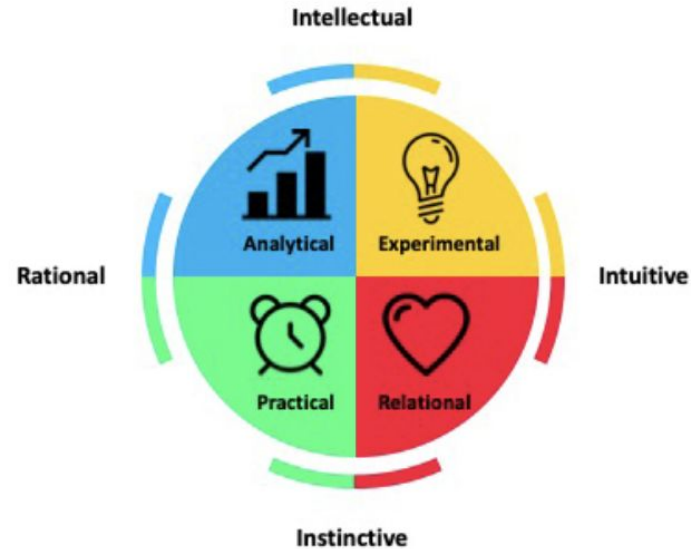
Right Brain:
Artistic / Emotional

Neocortex:
Intellect

Limbic System:
Emotion

Herrmann Brain Dominance Instrument (HBDI)

There are four major thinking styles that reflect the left cerebral, left limbic, right cerebral and right limbic.
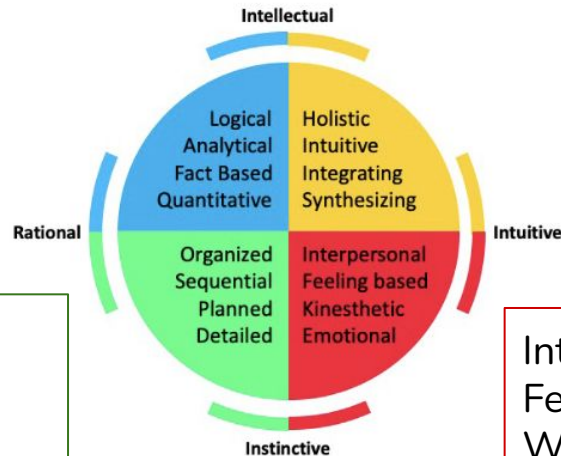
Herrmann Brain Dominance Instrument (HBDI)

These four thinking styles are characterized by different traits

Logical & Rational
Technical approach
WHAT

Imaginative & conceptual
Explorative approach
WHY

Organized & Sequential
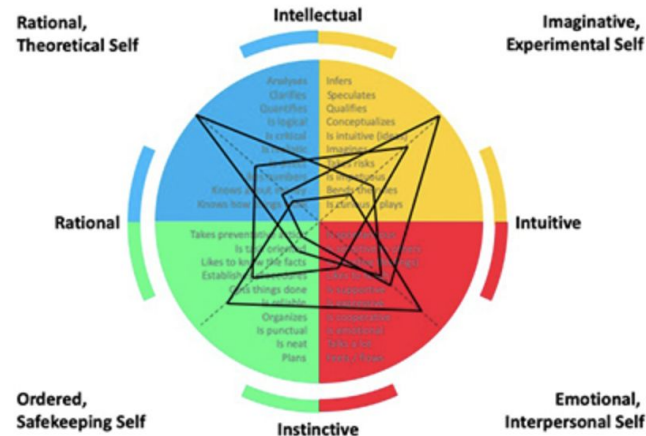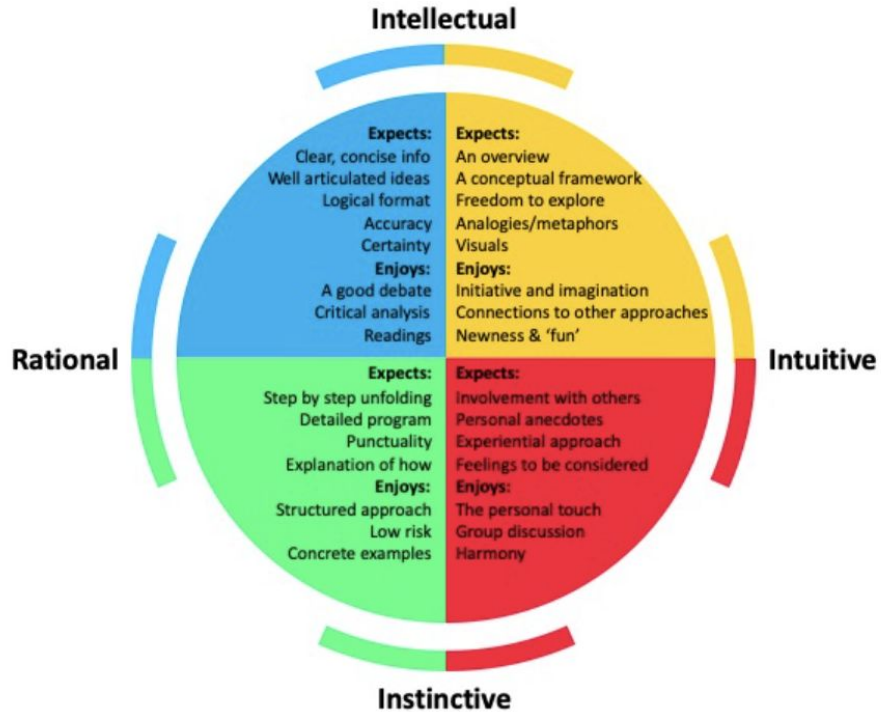Methodical approach
WHEN

Interpersonal skills & communication
Feeling-based approach
WHO

The Complex Self

Most of us identify with thinking styles in more than one quadrant and these different thinking preferences reflect a complex self made up of our rational, theoretical self; our ordered, safekeeping self; our emotional, interpersonal self; and our imaginative, experimental self.

The Complex Self

Intellectual

Rational

Expects:
Clear, concise info
Well articulated ideas
Logical format
Accuracy
Certainty
Enjoys:
A good debate
Critical analysis
Readings

Expects:
An overview
A conceptual framework
Freedom to explore
Analogies/metaphors
Visuals
Enjoys:
Initiative and imagination
Connections to other approaches
Newness & 'fun'

Intuitive

Expects:
Step by step unfolding
Detailed program
Punctuality
Explanation of how
Enjoys:
Structured approach
Low risk
Concrete examples

Expects:
Involvement with others
Personal anecdotes
Experiential approach
Feelings to be considered
Enjoys:
The personal touch
Group discussion
Harmony

Instinctive

Conclusion

Understanding the complexity of how people think and process information **helps us understand not only our own approach to problem solving, but also how individuals within a team can contribute.** There is great value in diversity of thinking styles within collaborative teams, **each type bringing strengths to different aspects of project development**.