Capstone Design Team Formulation Exercise

R0.1, September 2016

This exercise is provided to give you some insight into things to consider when forming design/implementation teams. The content of this document, the method used, and the survey are taken from the book "Teamology: The Construction and Organization of Effective Teams" by Douglass J. Wilde of Stanford University. His book, published by Springer-Verlag London Ltd. in 2009, ISBN 978-1-84800-386-6, can be accessed for free via the SpringerLink portal accessible through the University of Alberta library web site.

Adding a few people who know less, but have diverse skills, actually improves the group's performance.

– James Surowiecki, The Wisdom of Crowds, 2004

The approach here uses Jung's cognition theory and a variation of the Myers-Briggs Type Indicator (MBTI) to look at an individual's "modalities". Having these modalities covered by a formed group has proven to lead to improved performance and better learning. Most individuals naturally operate in one or two areas, shown in Table 1.1, below, taken directly from the book.

Table 1.1 Jung's cognitive modes

2	C					
Extraverted Sensing	Extraverted iNtuition	-	Extraverted Thinking	Extraverted Feeling		
ES	EN		ET	EF		
EXPERI- MENT	IDEATION		ORGANI- ZATION	COMMU- NITY		
\times						
Introverted Sensing	Introverted iNtuition	-	Introverted Thinking	Introverted Feeling		
IS	IN		IT	IF		
KNOW- LEDGE	IMAGI- NATION		ANALYSIS	EVALUA- TION		
INFORMATION COLLECTION			DECISION MAKING			

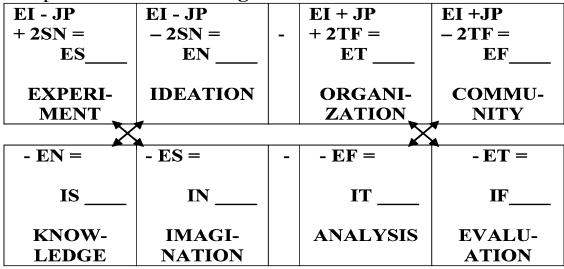
INFORMATION COLLECTION

DECISION-MAKING

Complete the questionnaire on the next page to find out where you prefer to operate!

Circle zero, one or two alternatives for each of 20 questions. Be careful with signs! Energy Direction: Outward or Inward							
EI1	You are more:	(e)	sociable	(i)	reserved		
EI2	You are more:	(e)	expressive	(i)	contained		
EI3	You prefer:	(e)	groups	(i)	individuals		
EI4	You learn better by	(e)	listening	(i)	reading		
EI5	You are more:	(e)	talkative	(i)	quiet		
El difference: $\Sigma e - \Sigma i = El$							
Orientation: Structured or Flexible							
JP1	You are more:	(j)	systematic	(p)	casual		
JP2	You prefer	(j)	planned	(p)	open-ended		
	activities:	07		d',	•		
JP3	You work better	(j)	with	(p)	without		
		07	pressure		pressure		
JP4	You prefer:	(j)	routine	(p)	variety		
JP5	You are more:	(j)	methodical	(p)	improvis-		
					ational		
JP difference: $\Sigma j - \Sigma p = JP$							
Inform	nation COLLECTIO	N pr	ocess: Facts	or			
Possibilities							
SN1	You prefer the:	(s)	concrete	(n)	abstract		
SN2	You prefer:	(s)	fact-finding	(n)	speculating		
SN3	You are more:	(s)	practical	(n)	conceptual		
SN4	You are more:	(s)	hands-on	(n)	theoretical		
SN5	You prefer the:	(s)	traditional	(n)	novel		
SN di	fference: $\Sigma s - \Sigma n = 3$	SN_		01100			
DECI	SION-making proce	ss: C	bjects or Pe	ople			
TF1	You prefer:	(t)	logic	(f)	empathy		
TF2	You are more:	(t)	truthful	(f)	tactful		
TF3	You see yourself as	(t)	questioning	(f)	accommo-		
	more:				dating		
TF4	You are more:	(t)	skeptical	(f)	tolerant		
TF5	You think judges	(t)	impartial	(f)	merciful		
should be:							
TF difference: $\Sigma t - \Sigma f = TF$							

Compute and record **non-negative** scores below.



INFORMATION COLLECTION

DECISION-MAKING

Please note that this categorization is approximate, and indicates only affinities for the cognition modes!

Forming a group with these modes covered to varying degrees makes it more likely that when the group is presented with a problem, differing perspectives are coming into play. As we will see throughout the course, having differing perspectives is *very* important in achieving a solid, practical design.

Please detach this portion of the sheet and submit!

Name:

ID:

Modality	Your Score
ES	
EN	
IS	
IN	
ET	
EF	
IT	
IF	