Comparison of State Anxiety Levels in Individual and Team Competition Settings

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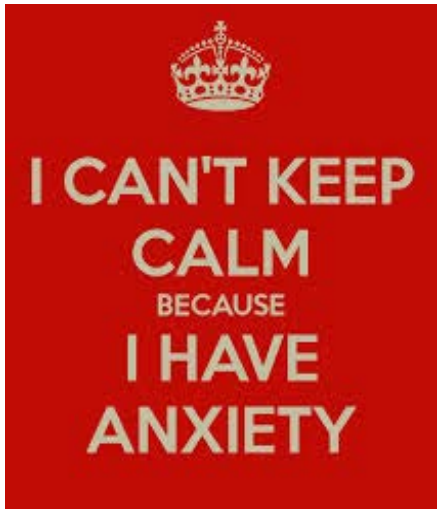
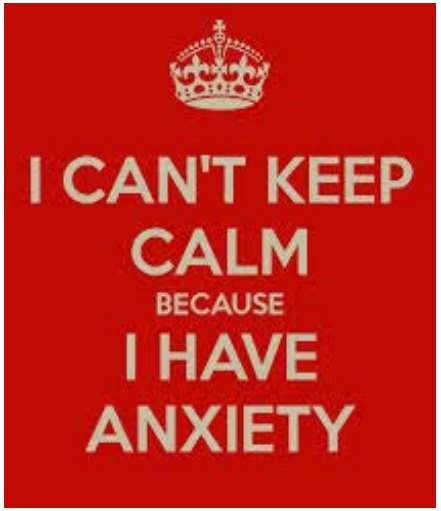
Anxiety

- Athletic Performance (Geukes, 2013)
- Trait vs. State Anxiety (Horkawa, 2012) (Turksoy, 2012)
- Cognitive vs. Somatic Anxiety (Kais, 2005)



Research in Anxiety

- Anxiety level changes through time
  (Kais, 2005)(Chamberlain, 2007)(Engler, 2012)(Kais, 2004)(Filaire, 2009)
- Group cohesion(Geukes, 2013)(Kais, 2005)(Chamberlain, 2007)(Norton, 2000)(Filaire, 2009)(Behzadi, 2011)
- Public and private audiences(Geukes, 2013)(Kais, 2005)(Chamberlain, 2007)(Norton, 2000)(Behzadi, 2011)



Individual vs. Team Competition Settings

- Team sports and settings (Norton, 2000)
  - Subjects are more affected by the group's performance
  - Audience attention can be dispersed among players
- Individual sports and settings (Behzadi, 2011)
  - Subjects are more affected by their own skills and abilities
  - Captures all of the audience attention

Competitive State Anxiety Inventory-2

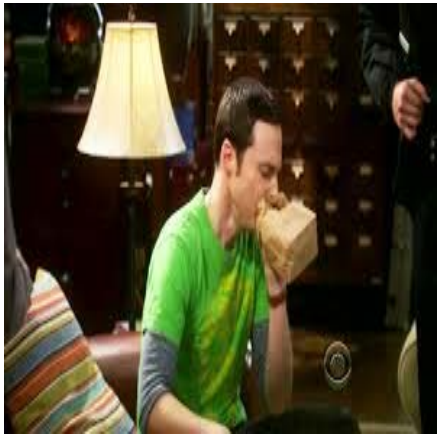
- More accurate than other anxiety questionnaires in the sports context
- Specifically measures cognitive anxiety, somatic anxiety, and self-confidence
- CSAI-2

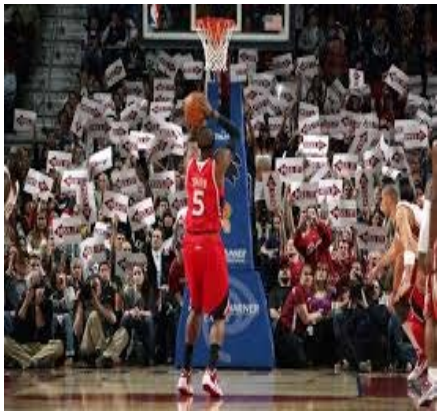
Purpose

- The purpose of this study was to determine if subjects produced a higher level of state anxiety in individual or team competition settings.

Hypothesis

Individual competition settings will create a higher level of state anxiety.



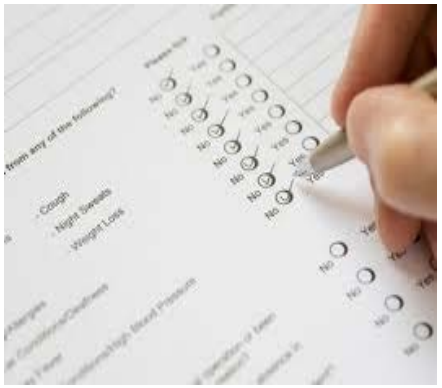


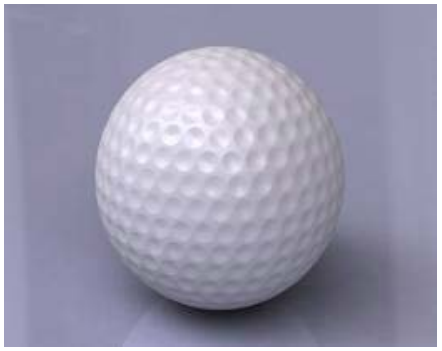
Participants

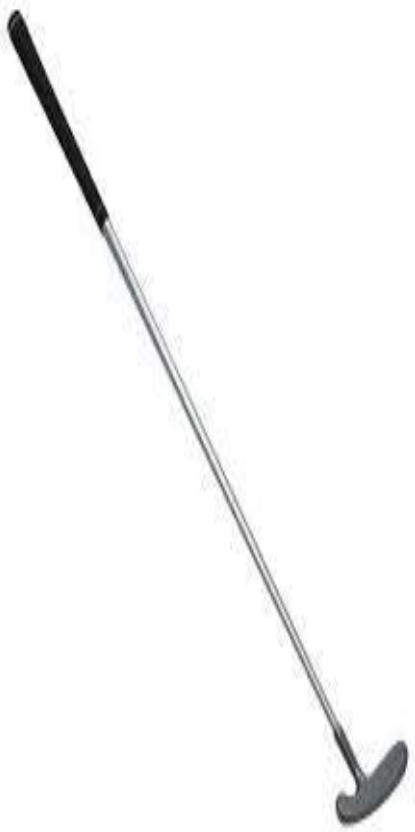
- 38 male and female young adults
- Aged 18-24
- Selected from the Manchester University's golf class

Instrumentation

- Competitive State Anxiety Inventory-2
- Standard Putter
- Standard Golf Ball

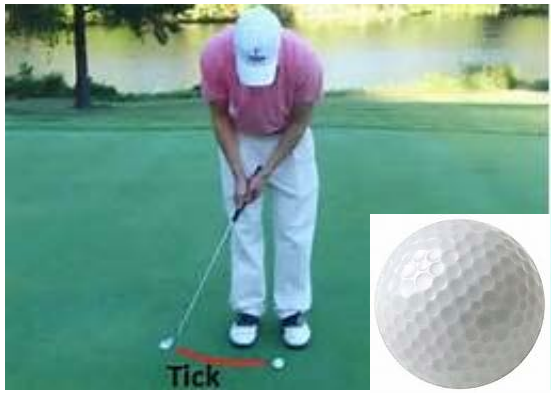






Procedure

- Obtained approval from the Manchester University Institutional Review Board
- Subjects were informed of the study
- Random team assignments
- Randomly assigned to conditions



Procedure

Individual Condition

- Given condition-specific instructions
- CSAI-2
- Task
- Scores compared individually

Team Condition

- Given condition-specific instructions
- CSAI-2
- Task
- Scores added to team score and compared

Scoring the CSAI-2

Cognitive state anxiety

Sum items 1, 4, 7, 10, 13, 16, 19, 22, and 25.

Somatic state anxiety

Sum items 2, 5, 8, 11, 14, 17, 20, 23, 26.

Self-confidence

Sum items 3, 6, 9, 12, 15, 18, 21, 24, and 27.

Score for each will range from 9 to 36, with 9 indicating low anxiety (high confidence) and 36 indicating high anxiety (low confidence)

Limitations

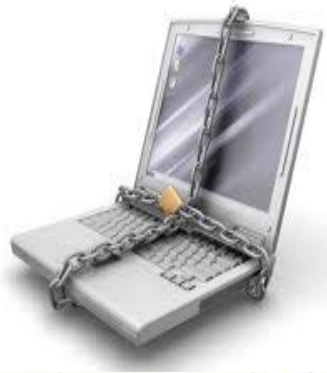
- Class time
- Small sample size

Delimitations

- Young adult age group: 18-24
- Manchester University Students
- Enrolled in Manchester University's golf class

Statistical Analysis

- Password protected computer
- PASW
- Matched Paired T-Test



Results

- Individual vs. Team

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
DIFF	38	-.8684	9.07081	1.47148

One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
DIFF	-.590	37	.559	-.86842	-3.8499	2.1131

The Match Paired t-test resulted in a t-score of -0.590 ($P>0.05$). There is not enough evidence to suggest a difference in overall state anxiety levels between individual and team competition settings

Results

- Individual Cognitive vs. Team Cognitive

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
DIFFCOG	38	-.1842	4.25444	.69016

One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
DIFFCOG	-.267	37	.791	-.18421	-1.5826	1.2142

The Match Paired t-test resulted in a t-score of -0.267 (P>0.05). There is not enough evidence to suggest a difference in cognitive state anxiety levels between individual and team competition settings.

Results

- Individual Somatic vs. Team Somatic

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
DIFFSOM	38	-.4211	2.78637	.45201

One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
DIFFSOM	-.932	37	.358	-.42105	-1.3369	.4948

The Match Paired t-test resulted in a t-score of -0.932 ($P>0.05$). There is not enough evidence to suggest a difference in somatic state anxiety levels between individual and team competition settings.

Results

- Individual Self-Confidence vs. Team Self-Confidence

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
DIFFADJSC	38	.6053	4.64141	.75294

One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
DIFFADJSC	.804	37	.427	.60526	-.9203	2.1309

The Match Paired t-test resulted in a t-score of 0.804 (P>0.05). There is not enough evidence to suggest a difference in self-confidence levels between individual and team competition settings.

Correlations: Overall Anxiety

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.072	5.689		1.946	.059
	TEAMQSCORE	.731	.124	.700	5.881	.000

a. Dependent Variable: INDVQSCORE

There is not enough evidence to suggest a correlation between overall state anxiety levels between individual and team competition settings (P>0.05).

Correlations: Cognitive Anxiety

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.091	2.186		1.871	.069
	TEAMCOG	.686	.153	.599	4.490	.000

a. Dependent Variable: INDVCOG

There is not enough evidence to suggest a correlation between cognitive state anxiety levels between individual and team competition settings (P>0.05) (Table 7, Table 8).

Correlations: Somatic Anxiety

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.231	1.334		5.421	.000
	TEAMSOM	.314	.116	.412	2.710	.010

a. Dependent Variable: INDVSOM

There is enough evidence to suggest a correlation between somatic state anxiety levels between individual and team competition settings ($P<0.05$).

Correlations: Self-Confidence

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.640	2.151		2.157	.038
	ADJSCTEAM	.787	.107	.775	7.351	.000

a. Dependent Variable: ADJSCINDV

There is enough evidence to suggest a correlation between self-confidence levels between individual and team competition settings ($P<0.05$).

Discussion

- Factors that can create different levels of anxiety
- Reasons for findings
- Further research
- How this can help Athletic Trainers in the future

Questions?