

# **‘Belongingness’, engagement and self-confidence in first-year students**

**Mantz Yorke  
Lancaster University**

[mantzyorke@mantzyorke.plus.com](mailto:mantzyorke@mantzyorke.plus.com)

**This work is supported by the Paul Hamlyn Foundation  
and the Higher Education Academy**

## **The challenge**

**As part of the ‘What Works? Student Retention & Success Programme’:**

**To design an instrument that will provide an index of student engagement, ‘belongingness’, and self-confidence that can ‘work’ over time and across disciplines**

# NSSE, AUSSE and similar instruments, such as the HEA Pilot

Won't do this particular job, though they may be fine for others

*Academic demand changes over time*

*Academic demand varies across subjects*

Year	1	2	3
Subject			
English			
Engineering			
Fine Art			

## **The instrument**

**16 scaled items, Strongly Agree ... Strongly Disagree**

**4 of these are negatively stated, necessitating reverse-scoring**

**13 Demographic items**

**Piloted with 709 first-year students in 4 varied universities**

**3 Scales:**

- **Belonging (6 Items, Alpha .76)**
- **Engagement (6 Items, Alpha .76)**
- **Self-confidence (4 Items, Alpha .72)**

**Variance explained = 52%**

## **First administration**

**13 universities participated**

**2841 responses from first-year students in Nov-Dec 2013**

**Technical characteristics of instrument almost exactly as pilot**

**3 Scales:**

- **Belonging (6 Items, Alpha .77)**
- **Engagement (6 Items, Alpha .75)**
- **Self-confidence (4 Items, Alpha .74)**

**Variance explained = 51%**

# Some demographic cuts

Significance levels are indicative only

	Under 20 N=1912	20 and + N=909	
Belongingness	4.05	4.07	ns
Engagement	3.76	3.94	p=.000
Self-confidence	3.45	3.54	p=.002

	1st / Family N=1103	Not 1st N=1654	
Belongingness	4.05	4.07	ns
Engagement	3.84	3.81	ns
Self-confidence	3.43	3.51	p=.003

	White Brit N=1993	Other N=804	
Belongingness	4.09	3.99	p=.000
Engagement	3.81	3.84	ns
Self-confidence	3.44	3.58	p=.000

	UK N=2535	Not UK N=266	
Belongingness	4.06	4.02	ns
Engagement	3.82	3.85	ns
Self-confidence	3.47	3.58	p=.007

	Lo Adv Circs N=2363	Hi Adv Circs N=312	
Belongingness	4.08	3.93	p=.000
Engagement	3.82	3.83	ns
Self-confidence	3.50	3.37	p=.002

Adverse circumstances index based on Dependants; PT job; Quiet space; Travel time

## Positive v. 'No better than neutral' motivation

Scale	Motivation level 4 or 5 N=2442	Motivation level 1, 2 or 3 N=385
Belongingness	4.13	3.58
Engagement	3.93	3.16
Self-confidence	3.56	2.96

Demographic variables seem to have little influence on level of motivation

Psychology > Sociology?

**A**  
**‘Straws in the wind’ analysis, based on % SA + A**

	University													Prop(+)	p (max)	ALL
	1	2	3	4	5	6	7	8	9	10	11	12	13			
<b>Belonging</b>																
Male	+	~	~	~	~	+	~	+	~	~	+	~	~	(4/13)	ns	~
Disability declared	+	~	+	+	~	+	~	~	~	+	~	+	+	(7/13)	ns	~
First in family	~	+	~	~	~	~	~	~	~	+	+	~	~	(3/13)	0.046	~
Young	+	+	+	+	+	+	+	+	~	+	~	+	~	(10/13)	0.046	+
White British	+	~	+	+	+	+	+	+	+	+	+	+	+	(12/13)	0.002	+
Low adverse circs	+	+	+	+	+	+	+	+	+	+	+	+	+	(13/13)	0.000	+
<b>Engagement</b>																
Male	~	~	~	~	~	+	~	~	~	~	+	~	+	(3/13)	0.046	~
Disability declared	~	~	~	+	~	+	+	+	~	+	~	~	~	(5/13)	ns	~
First in family	+	+	~	+	~	+	+	+	~	+	~	~	~	(7/13)	ns	+
Young	~	+	~	+	+	~	~	~	~	~	~	~	~	(2/13)	0.011	~
White British	~	+	+	+	+	+	~	+	~	+	+	+	~	(9/13)	ns	+
Low adverse circs	+	~	+	~	+	+	~	+	~	~	~	~	+	(6/13)	ns	~
<b>Self-confidence</b>																
Male	+	~	+	+	+	+	+	+	+	+	+	+	+	(12/13)	0.002	+
Disability declared	~	~	~	~	~	~	+	~	~	~	~	~	~	(1/13)	0.002	~
First in family	~	+	+	+	~	+	~	+	~	+	+	~	~	(7/13)	ns	+
Young	~	+	~	+	+	+	~	~	~	+	~	~	~	(5/13)	ns	~
White British	~	~	+	+	~	+	~	+	~	+	~	+	+	(7/13)	ns	~
Low adverse circs	+	+	+	~	+	~	+	+	+	~	+	+	+	(10/13)	0.046	+