Independent Samples (equivalence bounds based on raw scores)

Mean group 1	76	Mean group 2	78	90% CI Mdiff [Lower]	-7.799	90% CI Mdiff [Upper]	3.556
SD group 1	23	SD group 2	19.05998	NHST Welch's two-sided *t*-test			
n group 1	73	n group 2	79	*t*	-0.618		
low equivalence bound (raw scores)	-10	high equivalence bound (raw scores)	10	*df*	140.5869956		
				p	0.537		

NHST Student's two-sided *t*-test		Effect Size	
t	-0.623	Cohen's d_s	-0.101
df	150	Hedges's g_s	-0.101
p	0.534	SDpooled	20.980

TOST Power Analysis	
alpha (Type 1 error rate)	0.025
Desired Power	0.9
low equivalence bound (raw scores)	-10
high equivalence bound (raw scores)	10
pooled SD	20
Required Sample Size (in each condition)	104

TOST Equivalence Test Equal Variances Not Assumed			
One-Sided Test 1		One-Sided Test 2	
t	2.297	*t*	-3.533
df	140.59	*df*	140.59
p	0.012	*p*	0.000
TOST result			
t	2.297	*p*	0.012

The TOST procedure based on Welch's t-test indicated that the observed effect size (d = -0.1) was significantly within the equivalent bounds of -10 and 10 scale points, (or in Cohen's d: -0.48 and 0.48), t(140.59) = 2.3, p = 0.012

TOST Equivalence Test Equal Variances Assumed			
One-Sided Test 1		One-Sided Test 2	
t	2.313	*t*	-3.559
df	150	*df*	150
p	0.025	*p*	0.000
TOST result			
t	2.313	*p*	0.025

The TOST procedure based on Student's t-test indicated that the observed effect size (d = -0.1) was significantly within the equivalent bounds of -10 and 10 scale points, t(150) = 2.31, p = 0.025