

Evaluating the Correspondence between Qualitative and Quantitative Measures to Assess Interpersonal Emotion Regulation Strategies

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Introduction

What is interpersonal emotion regulation (IER)?

The process by which individuals **influence the emotions of others** (Zaki & Williams, 2013).
Two models have identified potential IER strategies.

Classifications of IER	Strategies
Interpersonal Affect Classification (IAC) (Niven et al., 2009)	Affective Engagement (AE) Cognitive Engagement (CE) Attention (A) Distraction (D) Humour (H)
Process Model of Emotion Regulation (Gross, 2002)	Situation Modification (SM) Attention Deployment (AD) Humour (H) Hiding (HI) Reappraisal (R) Affective Engagement (AE) Not Expressing (NE)

Common strategies: distraction/attention deployment, cognitive engagement/cognitive reappraisal, humour, affective engagement
Distinct strategies: Attention, situational modification, hiding, not expressing

Methods to Investigate IER

Open-ended qualitative questions (López-Pérez et al., 2016; Gummerum & López-Pérez, 2020) and **quantitative questionnaires** (Kwon & López-Pérez, 2021) are two most common methods to investigate IER.

	Pros	Cons
Quant questions	Enables the comparison of findings from diverse studies	Limits potential strategies employed by participants
Qual questions	Identifies spontaneous strategies individuals employ in specific contexts	Unable to compare across studies without a consistent theoretical framework; time-consuming

Study Aim

Both types of questions have **limitations**. It's crucial to determine if they are **comparable** to enhance the efficiency of the research process.

Our study aims to investigate **whether there are discrepancies between qual and quant methods**. This has important implications for understanding whether **previous findings in this field are due to the methodology employed**. Consequently, future research can select the most suitable tests to optimize efficiency.

Methods

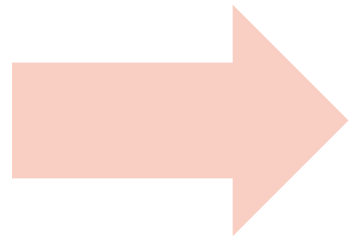
279 adults from the UK
recruited at a higher education institution in the northwest
(M = 21.82 years, SD = 6.30, female = 174)



9 scenarios with targets experiencing 3 negative emotions

Example of Anger Scenario

Your friend is working on an important project that needs to be completed soon. Despite their requests not to be interrupted, their partner **continually distracts them, which negatively affects their work.**



Open-ended **Qualitative Questions**
e.g. *What would you do to change how your friend is feeling?*

Quantitative Questionnaires
(Selecting the tendency to use each IER strategies on a 5-point Likert Scale, 1 = Not At All, 5 = Extremely)

Example of Quantitative Questions

Below are several possible strategies you could use to change your friend's feelings. Please indicate to what extent you would use each of the following strategies to change how your friend is feeling.
I would suggest they change some aspect of the situation (e.g., move to a quitter room) in order to decrease their negative feelings (situation modification)
I would discuss what happened and listen how they feel. (affective engagement)
I would advise them to focus their attention away from this situation (attentional deployment)
I would joke about it to make the mood a little lighter. (humour)
I would advise them to think about it in a positive way. (reappraisal)
I would advise them to hide their negative emotion (response modulation, hiding)
I would encourage them to not express their emotions (response modulation, not expressing)

Statistical Analysis

Strategy Scoring	
Qualitative Responses	1. Coded into corresponding IER strategies based on IAC by 3 independent coders using thematic analysis (Interrater reliability Ks > .82). “0” means a strategy not present, “1” means present. 2. Total Score for each strategy in one emotion = Average of the strategy's presence across the 9 scenarios
Quantitative Responses	Total Score for each strategy = Average rating of the strategy across the 9 Scenarios

Subsequently, **regression analyses** were conducted to examine the correspondence of **qualitative strategies** (AE, CE, A, D, and H) and **quantitative strategies** (SM, AD, HU, HI, AE, NE).

Results

Affective engagement (qualitative) as Outcome Variable

Quantitative Variables	<i>B</i>	<i>SE</i>	β	<i>t</i>	Zero-order correlations
R ² = .085					
AE	0.268	0.063	0.306**	4.246	.176
SM	-0.167	0.077	-0.165*	-2.178	-.078
HU	-0.040	0.048	-0.058	-0.827	-.071
NE	0.061	0.112	0.050	0.544	-.089
HI	-0.086	0.103	-0.076	-0.829	-.105
AD	0.095	0.066	0.113	1.430	-.005
R	-0.138	0.067	-0.166*	-2.075	-.065

For **affective engagement**, there was a **perfect correspondence** between participants' qualitative and quantitative responses.

Note. **p* < .05, ***p* < .001

Distraction (qualitative) as Outcome Variable

Quantitative Variables	<i>B</i>	<i>SE</i>	β	<i>t</i>	Zero-order correlations
R ² = .072					
AE	-0.200	0.094	-0.155*	-2.129	-0.069
SM	-0.091	0.114	-0.061	-0.802	0.040
HU	-0.054	0.072	-0.053	-0.749	.008
NE	0.072	0.167	0.040	0.433	.019
HI	-0.235	0.154	-0.141	-1.527	-.026
AD	0.380	0.098	0.307**	3.868	.190
R	0.052	0.099	0.042	0.521	.046

For **distraction**, there was a **perfect correspondence** between participants' qualitative and quantitative responses.

Humour (qualitative) as Outcome Variable

Quantitative Variables	<i>B</i>	<i>SE</i>	β	<i>t</i>	Zero-order correlations
R ² = .324					
AE	-0.014	0.024	-0.042	-0.591	-.005
SM	0.054	0.029	0.142	1.894	.087
HU	0.094	0.018	0.358**	5.179	.279
NE	-0.021	0.042	-0.045	-0.496	.079
HI	0.016	0.039	0.039	0.424	.101
AD	-0.031	0.025	-0.097	-1.246	.025
R	-0.043	0.025	-0.137	-1.727	.449

For **humour**, there was a **perfect correspondence** between participants' qualitative and quantitative responses.

Cognitive engagement (qualitative) as Outcome Variable

Quantitative Variables	<i>B</i>	<i>SE</i>	β	<i>t</i>	Zero-order correlations
R ² = .306					
AE	0.208	0.073	0.204*	2.847	.174
SM	0.011	0.089	0.009	0.119	.003
HU	-0.113	0.056	-0.141	-2.023	-.103
NE	-0.076	0.130	-0.054	-0.589	-.077
HI	0.162	0.119	0.124	1.353	-.026
AD	-0.235	0.076	-0.242*	-3.081	-.132
R	0.137	0.077	0.142	1.776	.078

***Attention (qual)** was not significantly linked to any strategies at the quantitative level

Discussion

Participants' quantitative responses **largely correspond to their qualitative responses** in IER. However, there are **important nuances**: AE, D and H showed perfect correspondence between participants' qualitative and quantitative responses, but CE and A did not.

Researchers need to be cautious when selecting the methods to investigate strategies. For example, **qualitative methods** may be more suitable for vulnerable groups, such as **children or those with low literacy**, as quantitative questions can pose **comprehension challenges**.

Although **exhaustion** is a concern with open-ended questions, they allow for **spontaneous IER strategy responses** without cues. This provides researchers with genuine, unguided insights into participants' strategies.

To conclude, researchers should carefully select their methodology based on the **target population and research aims**.