

The experience sampling method: A systematic literature review of social interactions among children and adolescents in school

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INTRODUCTION

Previous research on social interactions has largely relied on retrospective studies such as large-scale questionnaires. However, retrospective methodologies are limited in their ability to reveal context-sensitive information, and to be prone to memory distortion and bias.

Compared to retrospective methodologies, the experience sampling method (ESM)* is suggested to offer a valuable approach for understanding the process by which changes in everyday interpersonal functioning and emotions takes place.

Furthermore, it has been argued that one advantage of ESM compared to traditional survey research is that ESM allows for hypothesis testing at both within- and between-person level.

PURPOSE

- ✓ To investigate methodological characteristics and quality of experience sampling studies on social interactions among children and adolescents in school.
- ✓ To explore how much variance in social interaction variables can be attributed to the within-person level.



METHOD

Data Sources and Study Selection

- Academic Search Complete, PsycINFO, PsycArticles, ERIC, ProQuest, Web of Science, Wiley Online Library, and SAGE Journals databases, and reference lists were searched in November 2020 (Figure).
- Inclusion Criteria:** (1) Children and adolescents aged 5 to 17 years; (2) Social experiences and interactions were measured quantitatively by ESM; (3) School context, pertaining to primary and secondary education.

Methodological Quality

- Assessed by using a modified version of the Checklist for Reporting of EMA Studies (CREMAS).
- Studies were rated against 11 criteria, on a scale from 0-11: 1) Training; 2) Technology; 3) Wave duration; 4) Monitoring period; 5) Prompting design; 6) Prompt frequency; 7) Attrition; 8) Latency; 9) Compliance rate; 10) Missing data; 11) Limitations.

PRISMA FLOWCHART

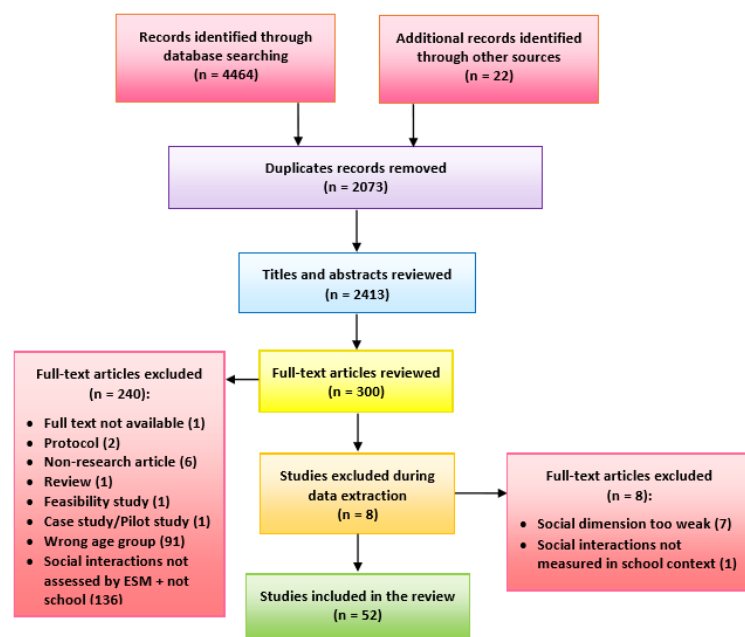


Figure. Flow-chart of the search strategy and the selection process.



RESULTS

- 52 experience sampling studies were included in our review.
- Overall findings include heterogenous reporting of design characteristics, e.g., on use of items.
- 11 studies demonstrated low, 26 moderate, and 15 high methodological quality.
- High quality studies** were characterized by higher scores on **training, latency, attrition, and limitations**.
- Intraclass correlation coefficient** was reported in nine studies (Table).
- On average 58% of the variance in social interaction variables was attributed to **within-person** fluctuation between timepoints (Table).

Table. Within-person variance for social ESM measured variables.

Reference	Variables	Assessment of variable	Within-person variance
Bai et al. (2016)	Peer problems	5 fixed items (yes/no)	.61
Griffin et al. (2019)	Early-day peer support	3 items (4-point scale)	.50
Griffin et al. (2019)	Early-day teacher support	3 items (4-point scale)	.52
Pouwels et al. (2016)	Internalizing affect (lonely)	6 items (7-point scale)	.43
van Roekel et al. (2013)	Positive company	2 items (scale unclear)	.72
van Roekel et al. (2013)	Negative company	2 items (scale unclear)	.66
van Roekel et al. (2014)	State loneliness	4 items (7-point scale)	.63
Russell et al. (2016)	Antisocial behavior	6 fixed items (yes/no)	.73
Slot et al. (2019)	Interests (e.g., socializing)	2 open items	.89
Tavares et al. (2020)	Positive affect	10 items (7-point scale)	.51
Tavares et al. (2020)	Negative affect	8 items (7-point scale)	.46
Uink et al. (2016)	Lonely	1 item (5-point scale)	.49
Uink et al. (2016)	Jealous	1 item (5-point scale)	.43

CONCLUSIONS

- ✓ To our knowledge, this is the first systematic review providing an overview over study design characteristics and methodological quality of experience sampling studies on social interactions among children and adolescents in school.
- ✓ Due to the heterogeneity of study design characteristics, it was not appropriate to conduct a meta-analysis ∴ a systematic review was conducted.
- ✓ The findings in the review can contribute to improving the quality assessment in ESM research as well as to inform and guide future experience sampling studies on social phenomena among children and adolescents in the school context.

*What is ESM?

<https://tinyurl.com/2p98uvy>



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