



01.01.2021

User manual NB-ECEC

Data extraction and quality assessment

The purpose of this user manual is to provide guidance on what we as reviewers of research articles should consider when doing data extraction and quality assessment. This user manual is structured in line with the data extraction template and quality assessment in EPPI-Reviewer.

The structure of this manual:

Part 1 Data extraction

- A) Administrative details
- B) Study aim and rationale
- C) Assessment

Part 2 Quality assessment

- D) Overall quality assessment

Part 1 Data extraction

Section A Administrative details	Consider	Options
A1 Type of publication	The type of publication	<p><i>[please select one:]</i></p> <ul style="list-style-type: none"> • Journal article • Thesis/dissertation • Book • Book chapter • Review/research mapping • Other (please specify)
A2 Please enter if the data used in this study is a part of another study	Is the data reported on here part of a larger study? (there is a large study and this paper is just one of several papers that have been or will be produced using data from the large study).	<p><i>[please select one:]</i></p> <ul style="list-style-type: none"> • Yes, the data used in this study is part of another study (please specify) • No, the data used in this study are not a part of another study (or no information provided)
A3 Publication language	In which language the article is written	<p><i>[please select one:]</i></p> <ul style="list-style-type: none"> • English • Danish • Norwegian • Swedish • Other language (please specify)
A4 What is the purpose of the study?	<p>The rationale for conducting the research</p> <ul style="list-style-type: none"> - Is the main goal to describe what has been observed or said or reported? 	<p><i>[please select one:]</i></p> <ul style="list-style-type: none"> • Description

	<ul style="list-style-type: none"> - <i>Or is the author interested in studying relationships between variables, e.g. relationships between gender and participation in play</i> - <i>Does the study provide insight into effects - what is best?</i> - <i>Or a review of research?</i> 	<ul style="list-style-type: none"> • <i>Exploration of relationships</i> • <i>“What works”</i> • <i>Mapping/synthesizing research</i>
A5 Do authors report how the study was funded?	Who funded the research?	<p><i>[please select -multiple coding allowed:]</i></p> <ul style="list-style-type: none"> • <i>Research council/research foundation, please state the name of the funder</i> • <i>Ministry/government/local government, please state the name of the funder</i> • <i>University/research institutions, please state the name of the funder</i> • <i>Private funding, please state the name of the funder</i> • <i>Union funding, please state the name of the funder</i> • <i>Not stated</i> • <i>Other, please specify</i>
A6 In which country or countries was the study carried out?	The name of the Scandinavian country involved in this research. If the research is a part of a collaboration between a Scandinavian country and another country, please write the name of the country.	<p><i>[please select -multiple coding allowed:]</i></p> <ul style="list-style-type: none"> • <i>Denmark</i> • <i>Norway</i> • <i>Sweden</i>

		<ul style="list-style-type: none"> • Other countries, please specify
A7 Is the study qualitative or quantitative? Or is it a mixed methods research?	The method used in the research (Review = e.g. systematic review, meta-analysis, meta-synthesis, rapid review., scoping, mapping.... can be specified specifically – note the term the authors use.)	<p><i>[please select one:]</i></p> <ul style="list-style-type: none"> • Qualitative • Quantitative • Mixed methods research • Review/mapping (please specify) • Not stated
A8 What is the design of the study?	Find how the authors describe their study	<p><i>[please select -multiple coding allowed:]</i></p> <ul style="list-style-type: none"> • Ethnography • Observation study • View study • Case study • Action research • Cross-sectional • Document study • Longitudinal study • Cohort study • Case-control study • Controlled experiment with random allocation to groups (RCT) • Experiment with non-random allocation to groups (quasi-experiment) • One group pre-post test • Secondary data analysis • Post qualitative research • Review (non-systematic) • Systematic review

		<ul style="list-style-type: none"> • Other (please specify)
A9 Which methods were used to collect the data?	The method used for collecting the research data	<p><i>[please select -multiple coding allowed:]</i></p> <ul style="list-style-type: none"> • Observation • One-to-one interview • Questionnaire • Report of diary (field notes) • Collection of data from day-care (minutes of meeting, calendar etc.) • Sound recording • Video • Official documents such as laws, regulations and programs • Clinical test • Physical test • Psychological test • Practical test • Language proficiency test • Focus group interview • Secondary data • Curriculum-based assessment • Presentation of hypothetical scenario • Literature search (review or research mapping) • Other (please specify)
A10 Which actors and their conditions are explored?	<ul style="list-style-type: none"> • Who are "the object" of this study? 	<p><i>[please select -multiple coding allowed:]</i></p>

		<ul style="list-style-type: none"> • Educational staff: Leadership/management • Educational staff: Practitioner • Children between 0-1 years • Children 1 year • Children 2 year • Children 3 year • Children 4 year • Children 5 year • Children 6 year • No information provided on the age of the children • Parent • Governance: Municipal • Governance: State government • Politician • Other, please specify • Trade union • Not relevant, this study is a research mapping/review • Other • Not applicable
<p>A 11 Who informs the study?</p>	<p>Who do the researchers interview or observe or gather information from?</p> <p>(The object of the study could be children 3-6 years of age, but the researchers question parents and teachers about them. In this case,</p>	<p>[please select -multiple coding allowed:]</p> <ul style="list-style-type: none"> • Educational staff: Leadership/management • Educational staff: Practitioner • Children between 0-1 years • Children 1 year

	<p>“Parents” and “Educational staff: Practitioner” would be the answer)</p> <p>Another example: The object is “Educational staff: Leadership/management” (see question A10) – but the ones who INFORM the study are “Governance: Municipal” and “Educational staff: Practitioners”.</p>	<ul style="list-style-type: none"> • Children 2 year • Children 3 year • Children 4 year • Children 5 year • Children 6 year • No information provided on the age of the children • Parent • Governance: Municipal • Governance: State government • Politician • Other, please specify • Trade union • Not relevant, this study is a research mapping/review
<p>A12 If a particular kindergarten is in focus in the study, which type?</p>	<p>What kind of kindergarten(s) does the study use as samples?</p>	<p>[please select – multiple coding allowed:]</p> <ul style="list-style-type: none"> • Family • Open • Mobile • Farm • Nature • Sports7athletics • Special needs • Educational profile (e.g. Waldorf, Montesorri, Emilio Reggia) • Other • General/not specified

Section B Study aims and rationale	Consider	Options
B1 Is the main focus of this study of an educational nature?	The pedagogical focus of the study CONTENT: e.g. learning about space or numbers or sounds or matter	[please select one:] <ul style="list-style-type: none"> • Yes • No • Not applicable
B2 Is the main focus of this study concerned with social and institutional aspects?	The focus of the study is the ECEC as an organization in itself and internal social and institutional processes	[please select one:] <ul style="list-style-type: none"> • Yes • No • Not applicable
B3 Is the main focus of this study “the institution in society”?	The study is about the ECEC in society (not in itself).	[please select one:] <ul style="list-style-type: none"> • Yes • No • Not applicable
B4 Main topic?	<ul style="list-style-type: none"> • The main topic(s) of the study 	[please select -multiple coding allowed:] <ul style="list-style-type: none"> • Teaching and learning • Equal opportunity or inclusion/exclusion • Health • Organization and management • Assessment, evaluation documentation and development • Educational/didactical working method • Curriculum/framework • Policy • Economy • Professional development • Classroom/child group management • ECEC quality • Transition from day-care to school

		<ul style="list-style-type: none">• Children’s physical action and development in day-care• Play practices• Perspective of the child• Pedagogical practices• Technology and ICT• Sustainability• Ethnic minorities• Parental cooperation• Cooperation between kindergarten and school• Communication/relation• Working environment• Physical environment• Well-being• Childrens rights• ECEC content• Basic values and/or ethics• Intention and purpose• Working with control documents• Learning organization• Social system• The ECEC institution in society• The institution in a historical and cultural perspective• The institution in an economic and political perspective• Other, please specify
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Section C Assessment	Consider	Options/Examples (Examples of justifications removed to avoid identification of studies)
C1 Is the context of the study adequately described?	<ul style="list-style-type: none"> • Has the researcher provided sufficient knowledge about previous relevant research? • Has the researcher argued well and coherently to build a case for this study? • Has the researcher provided adequate information about the context in which the study is carried out? • 	<p><u>Yes, please justify assessment</u></p> <p><u>No, please justify:</u></p>
C2 Are the aims of the study clearly reported?	<ul style="list-style-type: none"> • Is the goal of the research described clearly? E.g. is there a research question? • Is the importance of the study described clearly? • Is the relevance of the study described clearly? 	<p><u>Yes, please justify assessment</u></p> <p><u>No, please justify assessment</u></p>
C3 Is there an adequate description of the sample used in the study?	<ul style="list-style-type: none"> • Does the researcher provide all the necessary information concerning the sample used in the study? 	<p><u>Yes, please justify assessment</u></p> <p><u>No, please justify assessment</u></p>
C4 Is there an adequate description of how the sample was identified and recruited?	<ul style="list-style-type: none"> • Does the researcher explain how the participants were selected? • Does the researcher explain why the participants he/she/they selected were the most appropriate to provide access to the type of knowledge sought by the study? 	<p><u>Yes, please justify assessment</u></p> <p><u>No, please justify assessment</u></p>

	<ul style="list-style-type: none"> • Are there any discussions around recruitment (e.g. why some people chose not to take part) 	
C5 Is there an adequate description of the method used in the study to collect data?	<ul style="list-style-type: none"> • Are the data collection methods described in adequate detail (Examples: do we know which measures were used? Are observation protocols or interviews described so that we can assess whether they are relevant for this research question? Number of observations? Time carried out? Etc.) • Are the methodological choices made argued for and justified? 	<p><u>Yes, please justify assessment.</u></p> <p><u>No, please justify assessment</u></p>
C6 Is there an adequate description of data analysis?	<ul style="list-style-type: none"> • Is there a clear description of the analytical process, provided in step-by-step explanations of the process, from start to finish? • Does the researcher provide examples of coding procedures? 	<p><u>Yes, please justify assessment</u></p> <p><u>No, please justify assessment</u></p>

<p>C7 Is the study reported with sufficient transparency?</p>	<ul style="list-style-type: none"> • Does the researcher present the research question, aim, sample, method, data collection, data analysis and the interpretation in a way that allows others to evaluate and conclude? • Does the researcher critically examine their own role, potential bias and influence during (a) formulation of the research questions (b) data collection, including sample recruitment and choice of location 	<p><u>Yes, please justify assessment</u></p> <p><u>No, please justify assessment</u></p>
<p>C8 Do the authors explicitly state where the full original data are stored?</p>	<ul style="list-style-type: none"> • This can be e.g. stored physically in a safe, stored digitally and encrypted – and more. 	<p><u>Yes, please justify assessment</u></p> <p><u>No, please justify assessment</u></p>
<p>C9 Do the authors avoid selective reporting bias or address the limitations of the study?</p>	<ul style="list-style-type: none"> • Are there indications that the authors are open and transparent about all results? Are results discussed critically? Do they discuss limitations in a reasonable way? 	<p><u>Yes, please justify assessment</u></p> <p><u>No, please justify assessment</u></p>
<p>C10 Are there any ethical concerns/problems about the way the study was conducted?</p>	<ul style="list-style-type: none"> • Are there sufficient details of how the research was explained to participants for the reader to assess whether ethical standards were maintained? • Does the researcher discuss issues raised by the study (e.g. issues around informed consent or confidentiality or how they have handled the effects of the study on the participants during and after the study)? 	<p><u>Yes, there are ethical concerns (please justify):</u></p> <p><u>No, there are no ethical concerns (please justify)</u></p>

	<ul style="list-style-type: none"> Was approval sought from an ethics committee? 	
C11 Was the choice of research design appropriate for addressing the research question(s) posed?	<ul style="list-style-type: none"> Has the researcher justified the research design (e.g. have they discussed how they decided which method to use) Is this appropriate for the research question guiding this study? Think about; timing of study, people involved or texts used, measures / interviews / observations / etc. used / the context for the study, the sample, etc. 	<u>Yes, please justify assessment</u> <u>No, please justify assessment</u>
C12 Have sufficient attempts been made to establish the repeatability, reliability, validity or trustworthiness of data collection methods or tools?	<ul style="list-style-type: none"> If the setting for the data collection was justified If it is clear how data were collected If the researcher has made the methods explicit (e.g. for interview method, is there an indication of how interviews are conducted, or did they use a topic guide) If methods were modified during the study. If so, has the researcher explained how and why If the form of data is clear If the researcher has discussed saturation of data 	<u>Yes, please justify assessment</u> <u>No, please justify assessment</u>
C13 Have sufficient attempts been made to establish the repeatability, reliability, validity or trustworthiness of data analysis?	<ul style="list-style-type: none"> If there is an in-depth description of the analysis process If thematic analysis is used. If so, is it clear how the categories/themes were derived from the data 	<u>Yes, please justify assessment</u> <u>No, please justify assessment</u>

	<ul style="list-style-type: none"> • Whether the researcher explains how the data presented were selected from the original sample to demonstrate the analysis process • If sufficient data are presented to support the findings 	
C14 To what extent are the research design and methods employed able to rule out any other sources of error/bias which would lead to alternative explanations for the findings of the study?	<ul style="list-style-type: none"> • To what extent contradictory data are considered • Whether the researcher critically examined their own role, potential bias and influence during analysis and selection of data for presentation 	<u>A lot, please justify assessment</u> <u>A little, please justify assessment</u> <u>Not at all, please justify assessment</u>
C15 Does the author address the generalizability, area of validity, and/or implications of the study?	<ul style="list-style-type: none"> • Does the researcher discuss the contribution the study makes to existing knowledge or understanding (e.g. do they consider the findings in relation to current practice or policy, or relevant research-based literature • If they identify new areas where research is necessary • If the researchers have discussed whether or how the findings can be transferred to other populations or considered other ways the research may be used 	<u>Yes</u> , the study results are generalizable in a contextual or conceptual way <u>Yes</u> , the author concludes that this study is not generalizable <u>No</u> , the author does not address the generalizability of the study.
C16 In light of the above, do you agree with the authors over the findings or conclusions of the study?	<ul style="list-style-type: none"> • If the findings are explicit • If there is adequate discussion of the evidence both for and against the researcher's arguments 	<u>Yes, please justify assessment.</u> <u>No, please justify assessment</u> <u>Not possible to assess due to lacking information</u>

	<ul style="list-style-type: none"> If the findings are discussed in relation to the original research question 	
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Part 2 Quality assessment

Section D Overall assessment	Consider	Options
D1 Overall weight of evidence?	<ul style="list-style-type: none"> To what extent is the research relevant and contributes to new knowledge? To what extent is the research question clearly defined? To what extent is the method and empirical data able to answer the research questions? To what extent does the researcher's conclusion answer the research question? To what extent is the study reliable? To what extent are the results valid? 	<p>[please select one:]</p> <ul style="list-style-type: none"> High Medium Low

	<ul style="list-style-type: none">• To what extent is the study generalizable?	
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