

Automated Concept Map Assessment

Data Extraction Form

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Description	Type	Values
<div> <div>^</div> <div>v</div> </div> Methods: Determines whether the evaluation process used fits as a qualitative, quantitative, similarity-based, or holistic method.	Select Many Field	<ul style="list-style-type: none"> Holistic Qualitative Quantitative Similarity
<div> <div>^</div> <div>v</div> </div> Used technic	Select Many Field	<ul style="list-style-type: none"> Graph Theory IA Other Specialized algorithm
<div> <div>^</div> <div>v</div> </div> Used technic - describe	String Field	n/a
<div> <div>^</div> <div>v</div> </div> Criteria/Metrics: This category aims to identify how the articles assessed the quality of the automated evaluation employed. This may include metrics for evaluating AI models, comparisons based on manual evaluations, or other relevant criteria.	Select Many Field	<ul style="list-style-type: none"> Comparison with expert map Comparison with propositions from educational document Manual evaluation by an expert Other Waterloo Rubric
<div> <div>^</div> <div>v</div> </div> Describe Criteria/Metrics	String Field	n/a
<div> <div>^</div> <div>v</div> </div> Characteristics of the MC (Concept Map): Identifies the type of information about the MC used in the evaluation process.	String Field	n/a
<div> <div>^</div> <div>v</div> </div> Type of Evaluation Provided: Identifies whether the automated evaluation provides some form of grade, textual feedback, quality analysis of the map, or another specific type of assessment.	Select Many Field	<ul style="list-style-type: none"> Other Score Textual feedback Visual feedback
<div> <div>^</div> <div>v</div> </div> Describe type of evaluation provided	String Field	n/a
<div> <div>^</div> <div>v</div> </div> Digital or physical: Identifies whether the evaluation applies to concept maps created in a digital or physical environment.	Select One Field	<ul style="list-style-type: none"> Digital Physical
<div> <div>^</div> <div>v</div> </div> Collaborative or individual	Select Many Field	<ul style="list-style-type: none"> Collaborative Individual
<div> <div>^</div> <div>v</div> </div> Type of task	Select Many Field	<ul style="list-style-type: none"> Construct-the-map Fill-in-the-map
<div> <div>^</div> <div>v</div> </div> Sample size (N)	Integer Field	n/a
<div> <div>^</div> <div>v</div> </div> Education level of the map creators	Select Many Field	<ul style="list-style-type: none"> Corporate Environment Elementary School High School Higher Education Middle School Not specified Postgraduate
<div> <div>^</div> <div>v</div> </div> How is the automated method proposed?	Select One Field	<ul style="list-style-type: none"> Fully automated Partially automated
<div> <div>^</div> <div>v</div> </div> Commentaries and observations	String Field	n/a