Table 5: Mapping of concepts between On-To-Methodology & other methodologies

Variable Name	On-To-Methodology	METHONTOLOGY	Methodology by Farooq et. al.	Methodology by Gaoyun et. al.	MADRE	Automatic ontology construction approach by Jia et. al.	Concept feature based Ontology Construction and Maintenance	Structured Ontology Construction by using data clustering & Maintenance
TYPE	Manual	Manual	Manual	Manual	Manual	Automatic	Automatic	Semi Automatic
Documentation	✔	✓	X	X	X	X	X	✓
Validation/ Verification	✔/✔	✓/✓	✓/✓	X/✓	X/✓	✓/X	✓/X	--
	Define Scope	✓ ≡Specification	✓ ≡Adaptation at Specification level	✓ ≡ Clarifying domain	✓ ≡ Domain Analysis	--	--	--
	Knowledge Acquisition: Domain Understanding & Knowledge Elicitation	✓ ≡Knowledge Acquisition	✓ ≡Domain vocabulary declaration	✓	✓ ≡Ontology Knowledge Acquisition	✓ ≡Extraction from Free Text + Dictionary	✓	✓ ≡Relational analysis + Clustering (Ontology construction)
	Knowledge Acquisition: Building Conceptual Model of the Knowledge	✓ Conceptualize	✓ ≡ Identifying and grouping resources + Identifying axioms, relationships, data-characteristics and naming them	✓	✓ ≡Phase of Ontology analysis & design (Construct Ontology Model)	✓ ≡Extraction from Knowledge Base	✓	✓ ≡Concept analysis (Ontology Construction)
	Analysis & Validation	X	✓ ≡Verification	--	X	✓ ≡Extract Relational patterns	X	--
	Design Ontology	✓ ≡Integration	✓ ≡Adaptation at design level	✓ ≡Identifying attributes	✓ ≡Phase of Ontology analysis & design		--	✓ ≡ System architecture)

Formalization	✓ ≡ Implementation		✓	✓ ≡Phase of Ontology representation	✓ ≡Sub-ontology Extraction	--	--
Evaluation	✓	X	X	✓	X	✓	--
Maintenance	X	X	X	X	X	✓	X