

Table 1: This table captures the results of the post-hoc tests derived from the ART analysis for the SHACL generation where  $p$  represents the p-value,  $p$  int. the significance interpretation of the p-value according to the conventional significance levels (\* meaning significant differences when  $p < 0.05$  and \*\*\* very significant differences when  $p < 0.001$ ), and  $|\bar{x}_1 - \bar{x}_2|$  as the unstandardised measure of the effect size measured in milliseconds.

Input size	Contrast	$p$	$p$ int.	$ \bar{x}_1 - \bar{x}_2 $
1000	Astrea - RML2SHACL	0.9879		1376.9333
	Astrea - SCOOP	0.9992		774.2333
	Astrea - sheXer	<0.0001	***	958.7667
	Astrea - ShExML	<0.0001	***	234.6333
	RML2SHACL - SCOOP	1.0000		602.7000
	RML2SHACL - sheXer	<0.0001	***	418.1667
	RML2SHACL - ShExML	<0.0001	***	1611.5667
	SCOOP - sheXer	<0.0001	***	184.5333
	SCOOP - ShExML	<0.0001	***	1008.8667
	sheXer - ShExML	<0.0001	***	1193.4000
10000	Astrea - RML2SHACL	<0.0001	***	1263.0667
	Astrea - SCOOP	0.2861		656.3667
	Astrea - sheXer	<0.0001	***	3289.4000
	Astrea - ShExML	<0.0001	***	1737.7333
	RML2SHACL - SCOOP	0.7368		606.7000
	RML2SHACL - sheXer	<0.0001	***	4552.4667
	RML2SHACL - ShExML	<0.0001	***	3000.8000
	SCOOP - sheXer	<0.0001	***	3945.7667
	SCOOP - ShExML	<0.0001	***	2394.1000
	sheXer - ShExML	<0.0001	***	1551.6667
100000	Astrea - RML2SHACL	1.0000		1290.5667
	Astrea - SCOOP	0.9851		725.3333
	Astrea - sheXer	<0.0001	***	45994.7667
	Astrea - ShExML	<0.0001	***	7149.6000
	RML2SHACL - SCOOP	0.6637		565.2333
	RML2SHACL - sheXer	<0.0001	***	47285.3333
	RML2SHACL - ShExML	<0.0001	***	8440.1667
	SCOOP - sheXer	<0.0001	***	46720.1000
	SCOOP - ShExML	<0.0001	***	7874.9333
	sheXer - ShExML	<0.0001	***	38845.1667
1000000	Astrea - RML2SHACL	0.0015	*	1277.6333
	Astrea - SCOOP	0.9550		701.2333
	Astrea - sheXer	<0.0001	***	179840.0333
	Astrea - ShExML	<0.0001	***	54201.7000
	RML2SHACL - SCOOP	0.4686		576.4000
	RML2SHACL - sheXer	<0.0001	***	181117.6667
	RML2SHACL - ShExML	<0.0001	***	55479.3333
	SCOOP - sheXer	<0.0001	***	180541.2667
	SCOOP - ShExML	<0.0001	***	54902.9333
	sheXer - ShExML	<0.0001	***	125638.3333

Table 2: This table captures the results of the post-hoc tests derived from ART analysis for the ShEx generation where  $p$  represents the p-value,  $p$  int. the significance interpretation of the p-value according to the conventional significance levels (\* meaning significant differences when  $p < 0.05$  and \*\*\* very significant differences when  $p < 0.001$ ), and  $|\bar{x}_1 - \bar{x}_2|$  as the unstandardised measure of the effect size measured in milliseconds.

Contrast	Input size	$p$	$p$ int.	$ \bar{x}_1 - \bar{x}_2 $
sheXer - ShExML	1000	<0.0001	***	1076.767
	10000	<0.0001	***	1750.633
	100000	<0.0001	***	38896.87
	1000000	<0.0001	***	122137.5