Table 1. Nineteen peer assessment design elements.

Cluster		Design element	Description	Example 1	Example 2	Example 3
Cluster I: decisions concerning the use of peer assessment	(1)	Subject area (Topping, 1998; Van den Berg et al., 2006)	Topic or discipline	Masters of Education	Information Systems Professional Practice	Undergraduate course in Architecture Design
	(2)	Intended learning outcomes (for students) (Topping, 1998; Van den Berg et al., 2006)	What should students achieve through this activity?	Peer learning, ability to critique and design assessments, moderation	Develop an understanding of peer review principles, developing academic writing skills	Teamwork skills in working on design projects
	(3)	Intended objectives (for staff) (Topping, 1998; Van den Berg et al., 2006)	What do academics aim to achieve? Time saving? Deeper learning?	Enhanced student learning	Enhanced student learning	Enhanced student learning, less feedback from staff
	(4)	Timing (Topping, 1998; Van den Berg et al., 2006)	When, over what period of time, and how much time?	Once within the unit, approx. 1 hour in a classroom	Within the unit, approx. 30 minutes review × 2 through online platform	Across the whole trimester, 5 minutes evaluation every week for 11 weeks
	(5)	Assessment type (Topping, 1998; Van den Berg et al., 2006)	Type of work assessed: product type, process	Oral presentation on assessment design	Written assignment	The process of teamwork
	(6)	Formality and weighting (Topping, 1998; Van den Berg et al., 2006)	Formative or summative?	Student moderated mark to be summative; participation marks	Peer review does not count towards grade (formative)	Marks given by peers count towards grade (summative)
Cluster II: link between peer assessment and other elements in the learning environment	(7)	Relationship to other assessments (Topping, 1998; Van den Berg et al., 2006)	How does it fit in?	One element of peer assessment contributing to final assessment	Peer assessment prior to staff assessment	Aggregated mark contributes to summative marks
	(8)	Link to self-assessment (Carnell, 2015; Reinholz, 2016)	Do students also self-assess at any stage?	Yes – self encouraged first	No	Yes – every time they assess peers
Cluster III: interaction between peers	(9)	Anonymity (Topping, 1998; Van den Berg et al., 2006)	Do students know who gave them feedback?	Part – anonymous	Non-anonymous	Non-anonymous
	(10)	Feedback information type (Gielen et al., 2011;	Quantitative or qualitative; written, verbal, video; face to face or online	Oral and written qualitative feedback, face to face	Qualitative written comments from student	Both quantitative and qualitative feedback, online

(*Continued*)

Table 1. Continued.

Cluster		Design element	Description	Example 1	Example 2	Example 3
		Nicol, Thomson, & Breslin, 2014)				
	(11)	Feedback utilisation (Boud & Molloy, 2013; Boud & Soler, 2016)	How is the feedback information used by the peer?	Used to improve the final submission of assessment design	Students can use feedback to improve work; a revision of assignment and response to peer review are submitted	Students can use the peer feedback each week
Cluster IV: composition of assessment groups	(12)	Peer configuration (Topping, 1998; Van den Berg et al., 2006)	Individual or group assessments?	Students are grouped to provide feedback on individual's work	Students are paired to give reciprocal feedback on written assignment	Students are grouped in teams to do project design work
	(13)	Peer matching (Gielen et al., 2011)	How are students matched?	Randomised	Randomised	Students choose matches; some intervention by academics
Cluster V: management of the assessment procedure	(14)	Standards used (Gielen et al., 2011; Panadero, Romero, & Strijbos, 2013)	Rubric, criteria, checklist; are students involved in creating rubrics?	Assessment criteria; Australian Graduate Professional Standards for Teachers (AGPST) No student involvement in the creation of rubric	No rubric provided	Simple three criteria provided by academics within the online system No student involvement in the creation of rubric
	(15)	Calibration/task scaffolding (Gielen et al., 2011; Panadero, Jonsson, & Strijbos, 2016)	How are students oriented to standards prior to using them?	Discussion of standards in class and self-assessment compared to tutor feedback	None undertaken	Teaching of teamwork skills
	(16)	Moderation of feedback (Gielen et al., 2011)	Is feedback checked prior to communication?	Students moderate within the group to produce consensus feedback	Students receive feedback information directly from peer	When disputes are found as necessary
Cluster VI: contextual elements	(17)	Technology use (Kulkarni et al., 2015; Li et al., 2015)	What technology facilitates it? What support is required to use technology?	Nil – face to face	Assignment exchange done online through Learning Management System; manual group creation	Simple online tool created
	(18)	Resources required (Liu & Carless, 2006)	Literature, toolkits, team teaching, equipment	Literature, classroom tutors to facilitate	Time to respond to problems re: pair not submitted work, etc.	Academics to teach students about teamwork via guides
	(19)	Policy (Black & Wiliam, 1998)	Within the assessment task To support the use of peer assessment at institutional level	Unable to allocate large summative marks to the peer assessment due to the lack of enabling policy	Unable to also teacher-mark peer review component as insufficient time/funds for assessment	Nil