Appendix A. Questionniare items on students' familiarity to mathematical concepts

Real or Pseudo? (Not revealed to the students)	Concept	Never heard of it	Heard of it once or twice	Heard of it a few times	Heard of it often	Know it well, understand the concept
Thinking about mathematical concepts: how familiar are you with the following terms?						
(Please tick only one box in each row.)						
Real	Exponential Function	☐1	☐2	☐3	☐4	☐5
Real	Divisor	☐1	☐2	☐3	☐4	☐5
Real	Quadratic Function	☐1	☐2	☐3	☐4	☐5
Pseudo	Proper Number	☐1	☐2	☐3	☐4	☐5
Real	Linear Equation	☐1	☐2	☐3	☐4	☐5
Real	Vectors	☐1	☐2	☐3	☐4	☐5
Real	Complex Number	☐1	☐2	☐3	☐4	☐5
Real	Rational Number	☐1	☐2	☐3	☐4	☐5
Real	Radicals	☐1	☐2	☐3	☐4	☐5
Pseudo	Subjunctive Scaling	☐1	☐2	☐3	☐4	☐5
Real	Polygon	☐1	☐2	☐3	☐4	☐5
Pseudo	Declarative Fraction	☐1	☐2	☐3	☐4	☐5
Real	Congruent Figure	☐1	☐2	☐3	☐4	☐5
Real	Cosine	☐1	☐2	☐3	☐4	☐5
Real	Arithmetic Mean	☐1	☐2	☐3	☐4	☐5
Real	Probability	☐1	☐2	☐3	☐4	☐5

Appendix B. Categorization of students in each education system

		REAL_MEAN		
		Bottom quartile	2nd and the 3rd quartiles	Top quartile
PSEUDO_MEAN	Top quartile	Irrational respondents		Over claimers
	2nd and the 3rd quartiles		Others	
	Bottom quartile	Low claimers		Ideal students