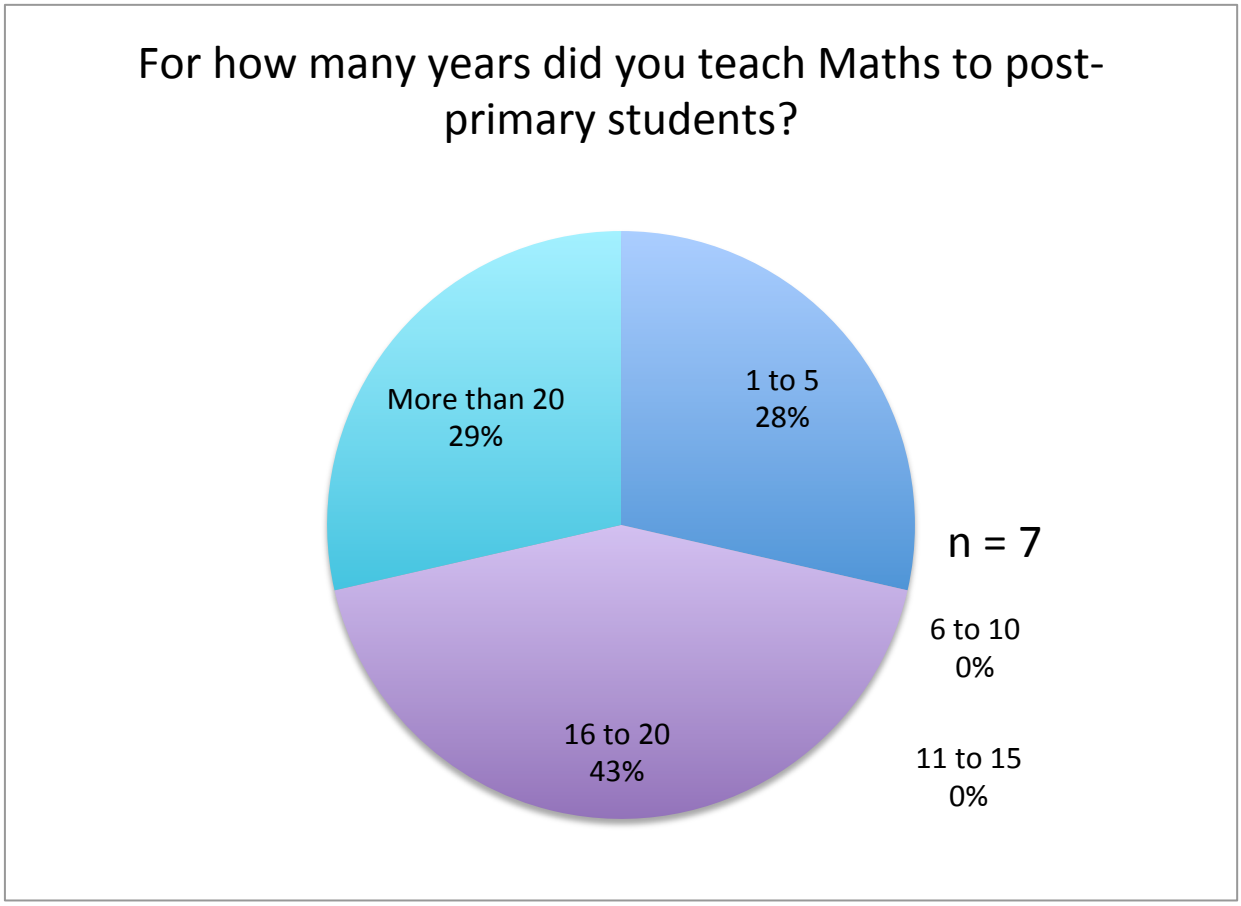
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 2.6

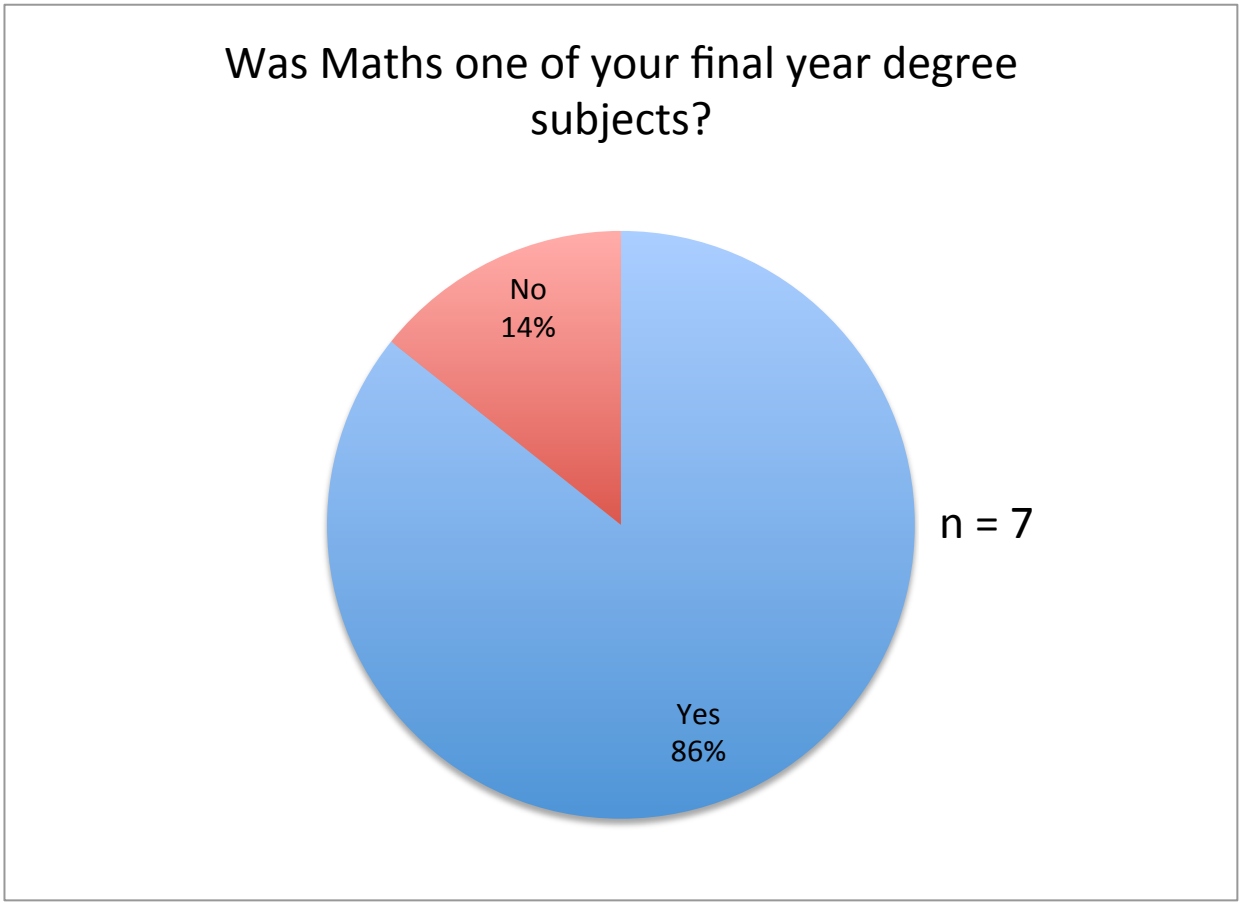
For how many years did you teach Maths to post-primary students? *n = 7*	**TOTALS**	**%**
1 to 5	**2**	**28.6%**
6 to 10	**0**	**0.0%**
11 to 15	**0**	**0.0%**
16 to 20	**3**	**42.9%**
More than 20	**2**	**28.6%**
Total	**7**	**100.1%**



Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 2.4

Was Maths one of your final year degree subjects? *n = 7*	**TOTALS**	**%**
Yes	**6**	**85.7%**
No	**1**	**14.3%**
Total	**7**	**100.0%**



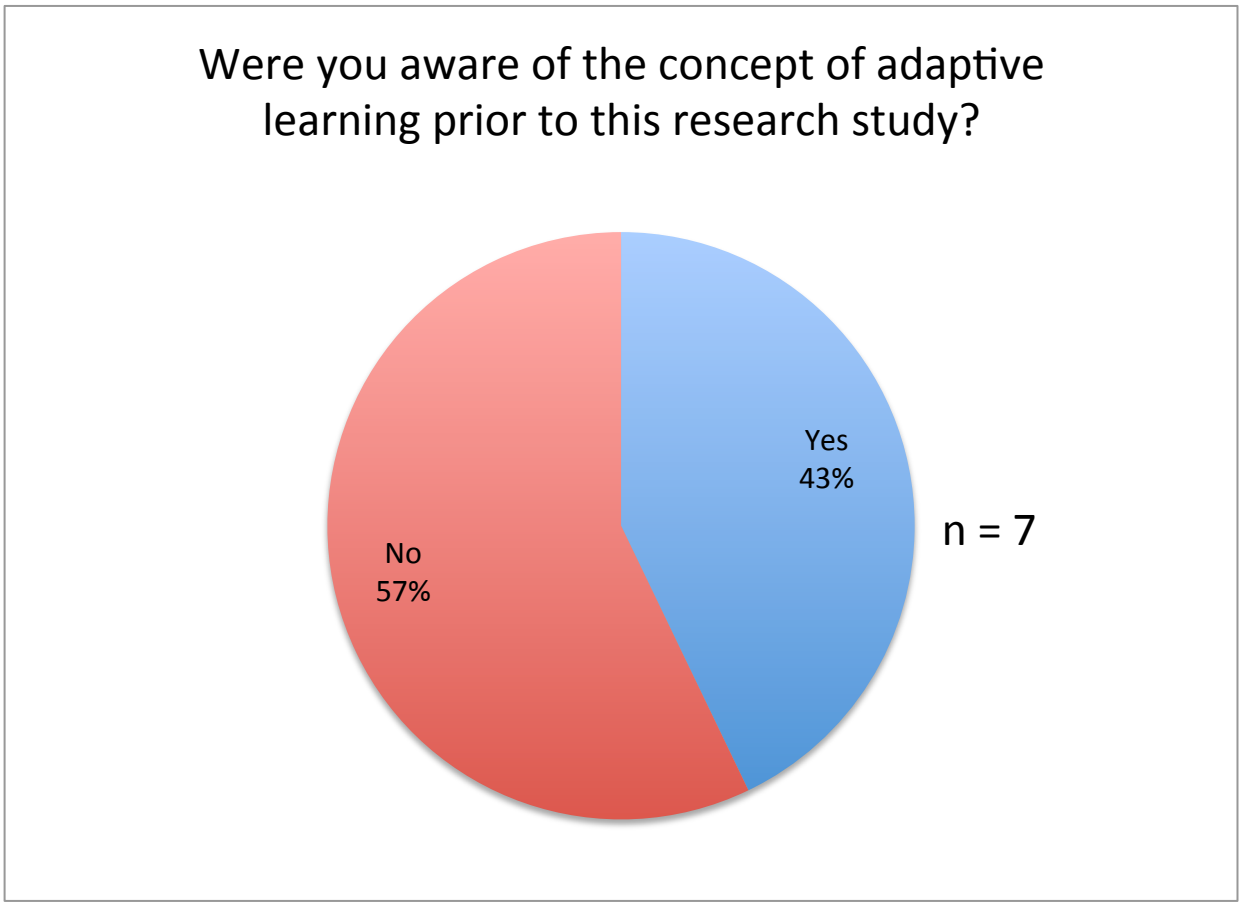
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 3.1

Were you aware of the concept of adaptive learning prior to this research study?

n = 7

	TOTALS	%
Yes	**3**	**42.9%**
No	**4**	**57.1%**
Total	**7**	**100.0%**



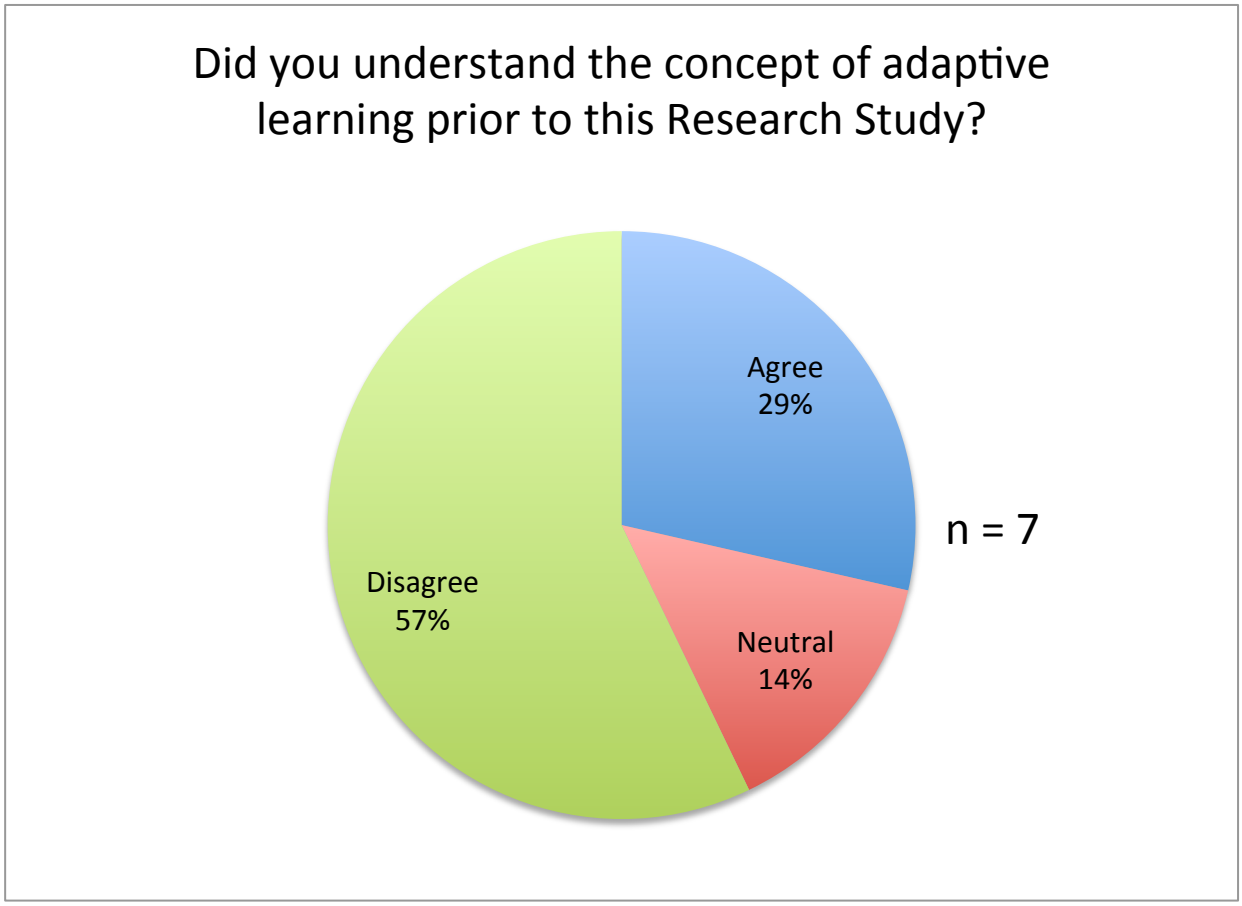
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 3.2

Did you understand the concept of adaptive learning prior to this Research Study?

n = 7

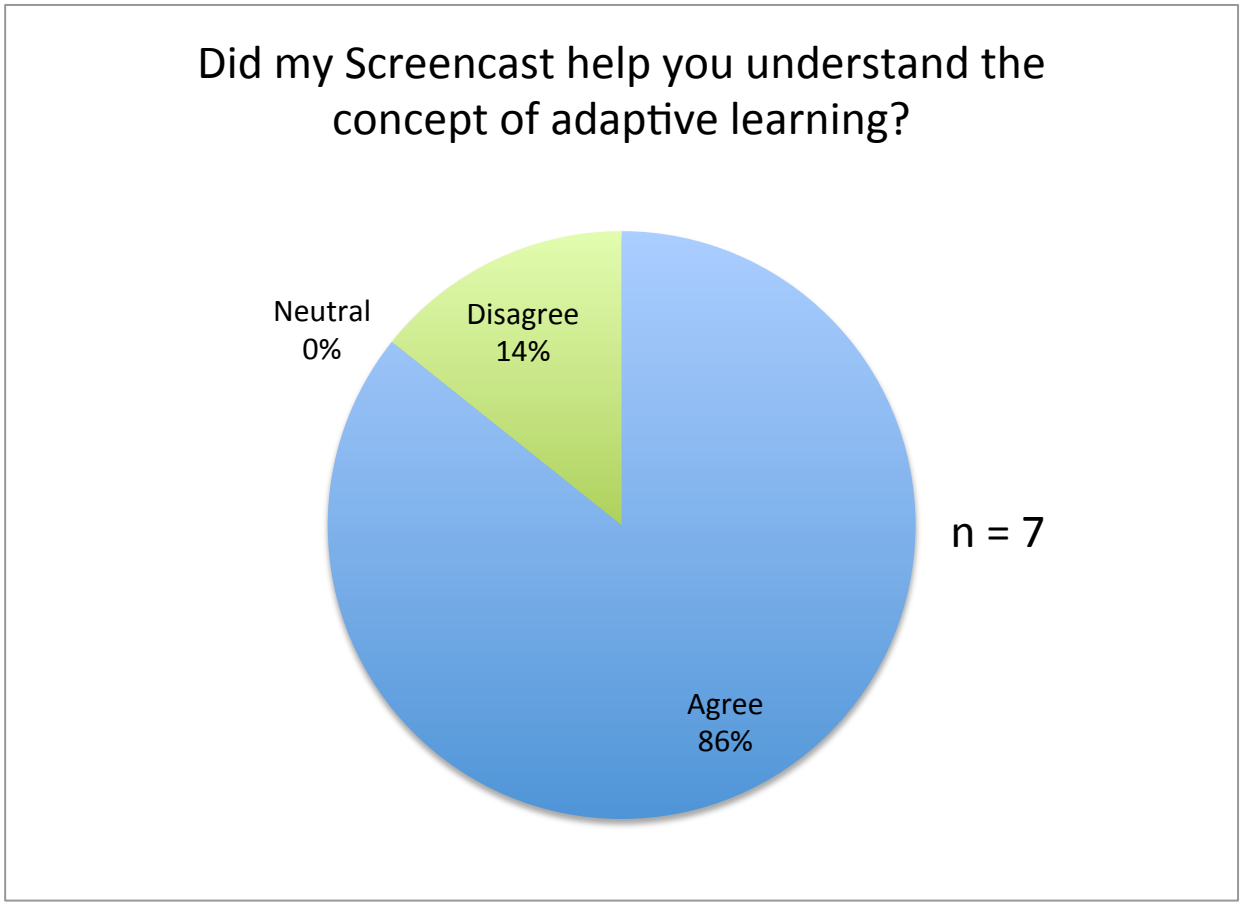
	TOTALS	%
Agree	**2**	**28.6%**
Neutral	**1**	**14.3%**
Disagree	**4**	**57.1%**
Total	**7**	**100.0%**



Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 3.3

Did my Screencast help you understand the concept of adaptive learning? *n = 7*	**TOTALS**	**%**
Agree	**6**	**85.7%**
Neutral	**0**	**0.0%**
Disagree	**1**	**14.3%**
Total	**7**	**100.0%**



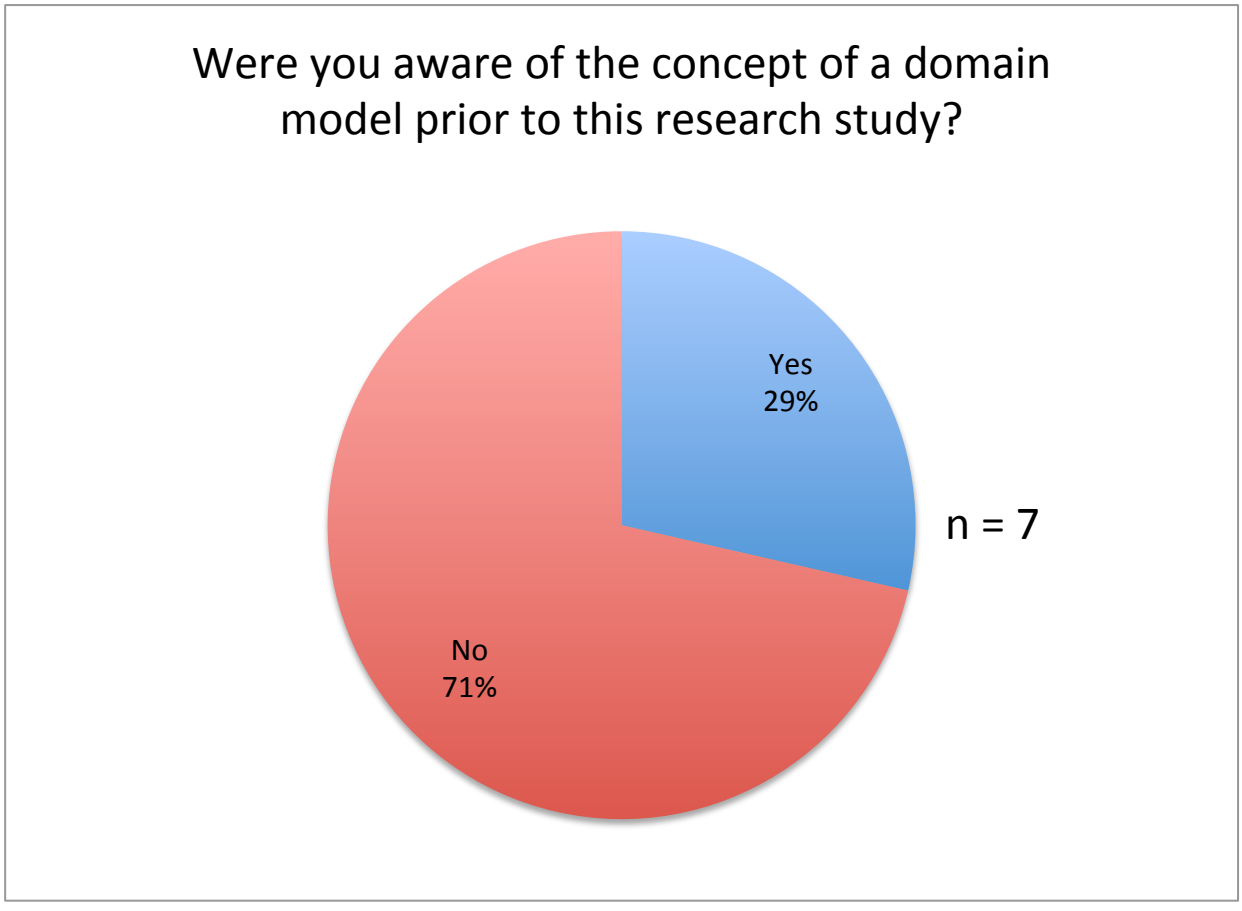
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 4.1

Were you aware of the concept of a domain model prior to this research study?

n = 7

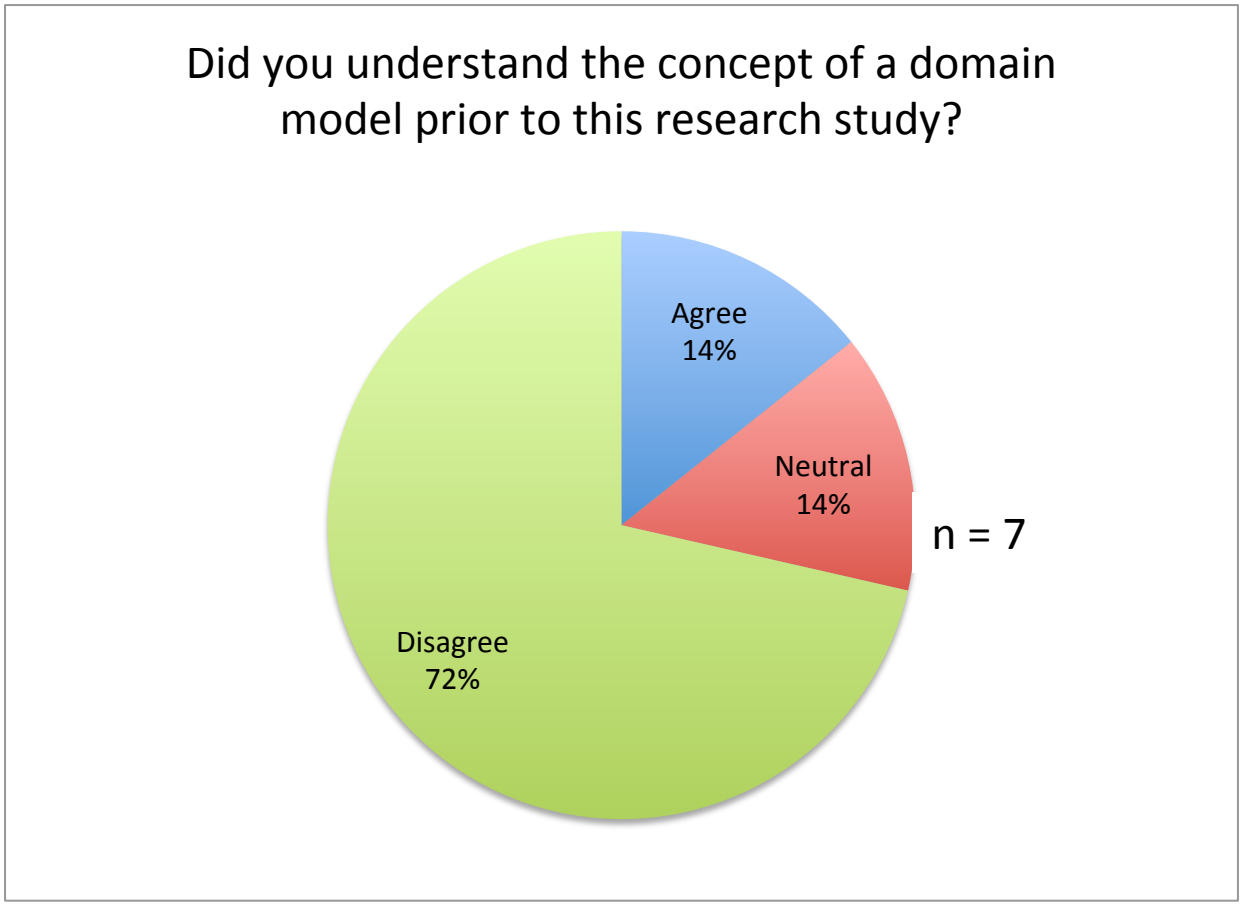
	TOTALS	%
Yes	**2**	**28.6%**
No	**5**	**71.4%**
Total	**7**	**100.0%**



Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 4.2

Did you understand the concept of a domain model prior to this reseai *n = 7*	**TOTALS**	**%**
Agree	**1**	**14.3%**
Neutral	**1**	**14.3%**
Disagree	**5**	**71.4%**
Total	**7**	**100.0%**



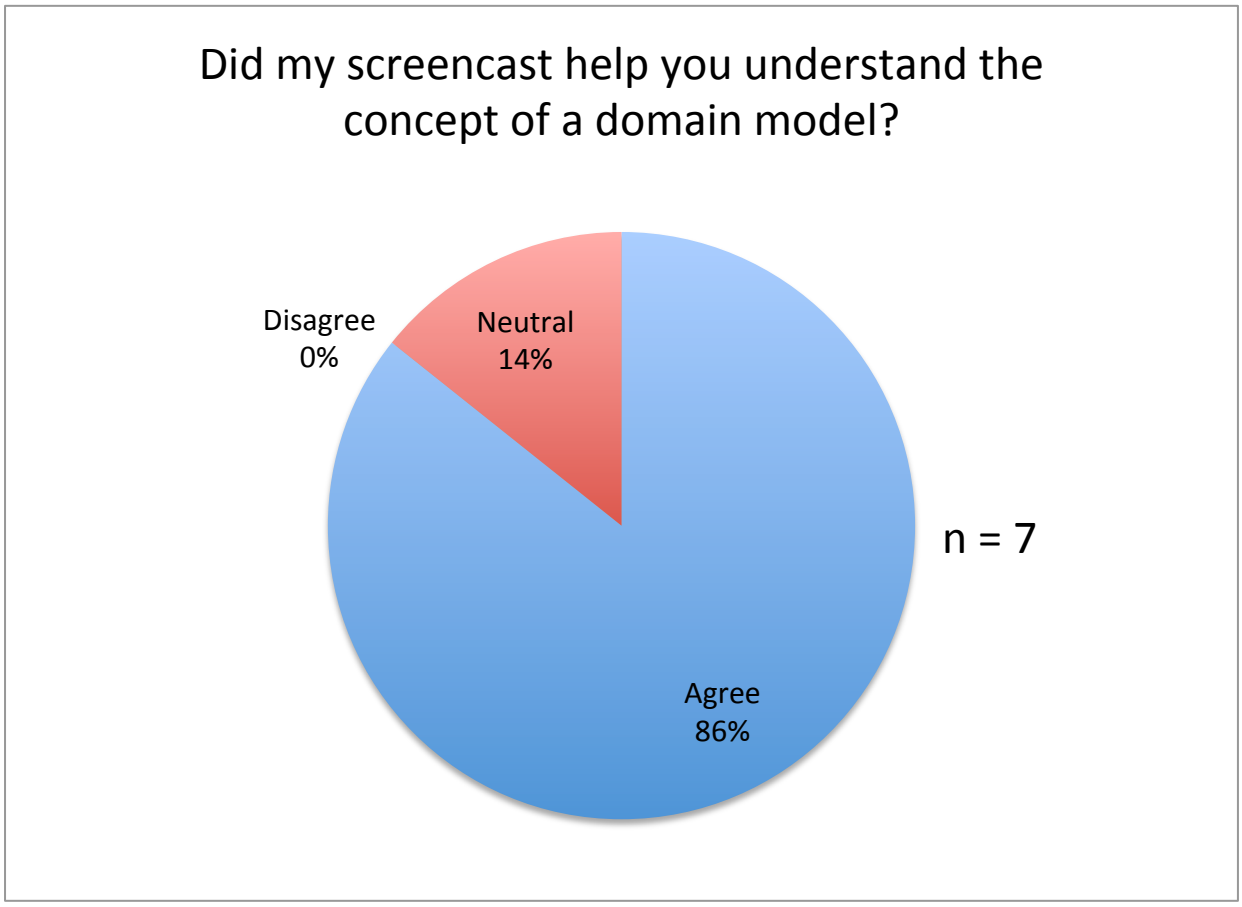
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 4.3

Did my screencast help you understand the concept of a domain model?

n = 7

	TOTALS	%
Agree	**6**	**85.7%**
Neutral	**1**	**14.3%**
Disagree	**0**	**0.0%**
Total	**7**	**100.0%**



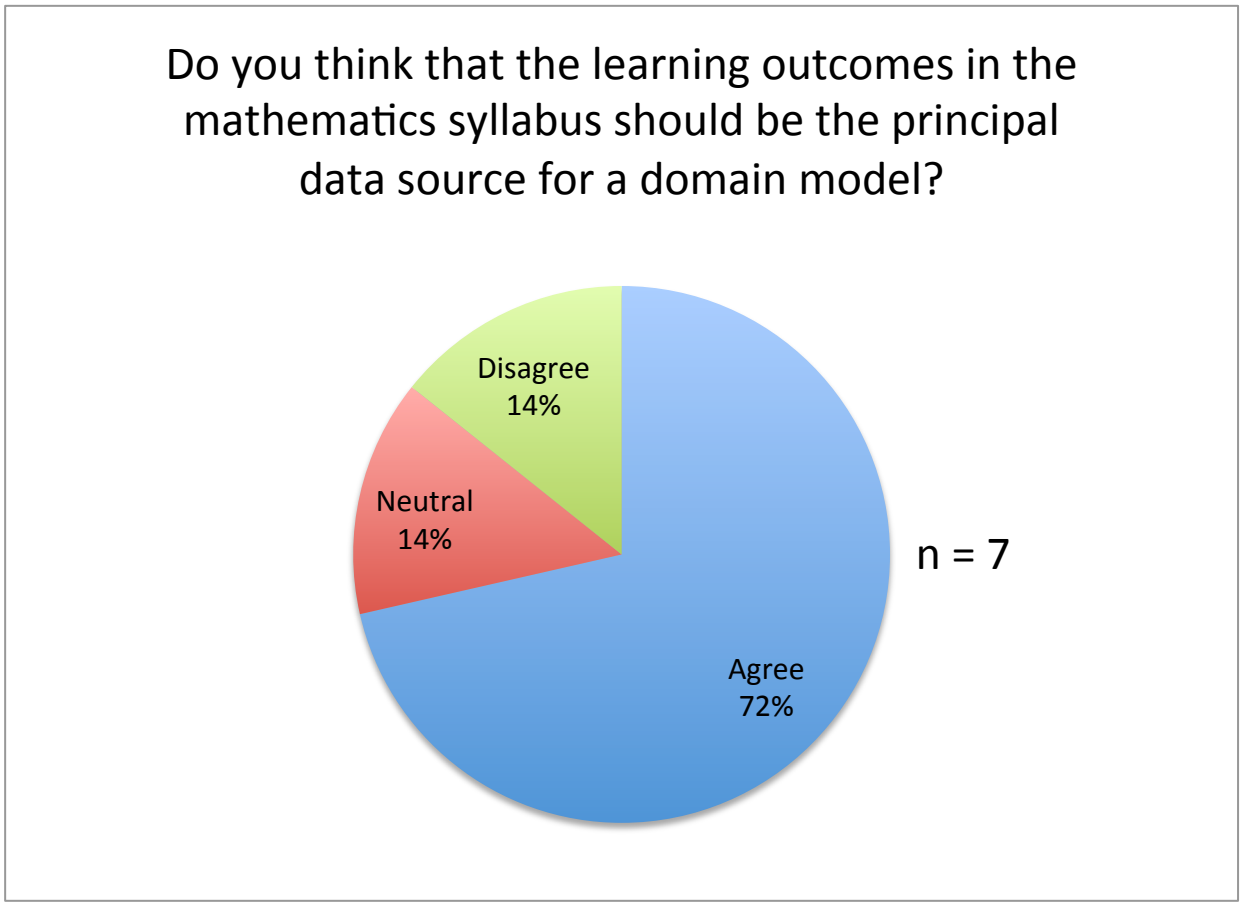
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 5.1

Do you think that the learning outcomes in the mathematics syllabus should be the principal data source for a domain model?

n = 7

	TOTALS	%
Agree	**5**	**71.4%**
Neutral	**1**	**14.3%**
Disagree	**1**	**14.3%**
Total	**7**	**100.0%**



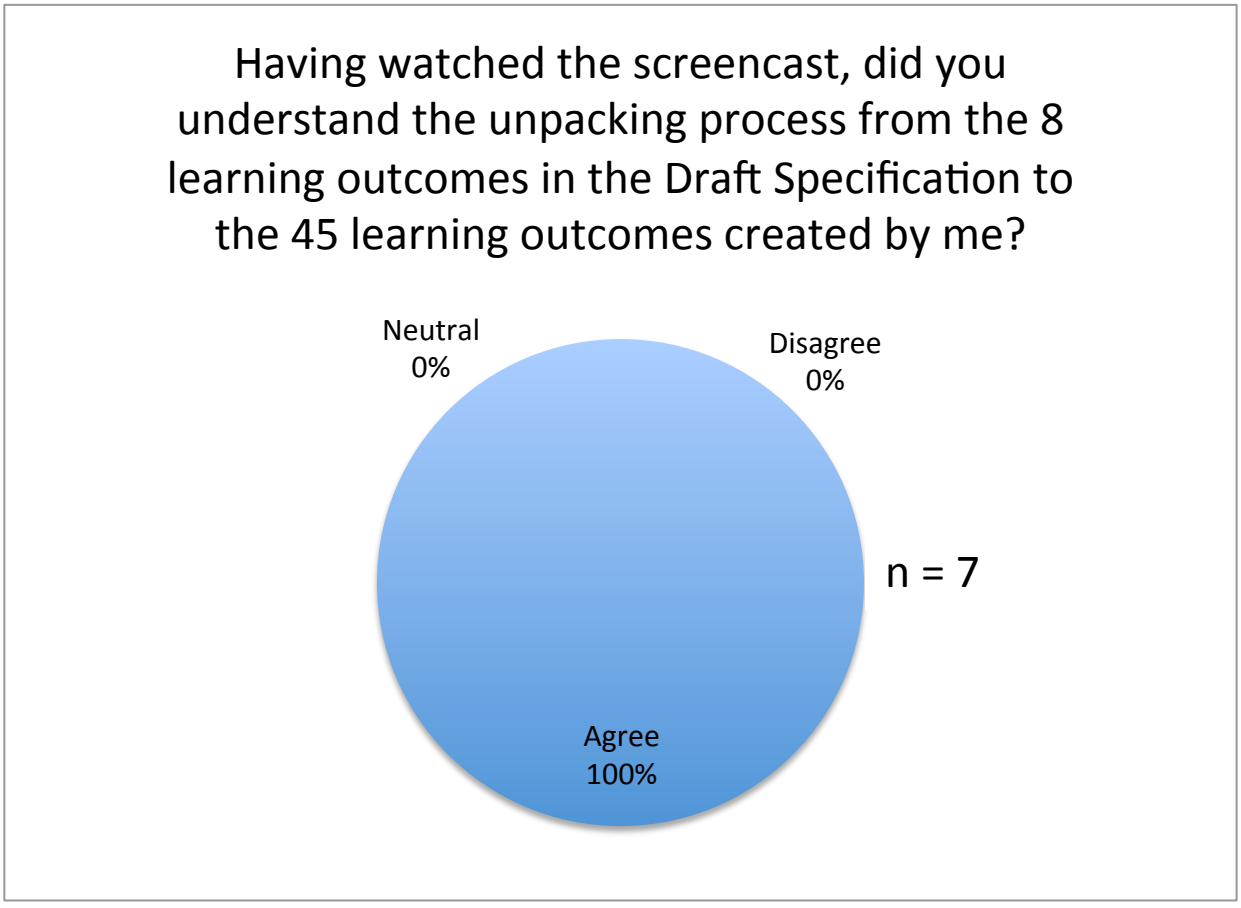
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 5.3

Having watched the screencast, did you understand the unpacking process from the 8 learning outcomes in the Draft Specification to the 45 learning outcomes created by me?

n = 7

	TOTALS	**%**
Agree	**7**	**100.0%**
Neutral	**0**	**0.0%**
Disagree	**0**	**0.0%**
Total	**7**	**100.0%**



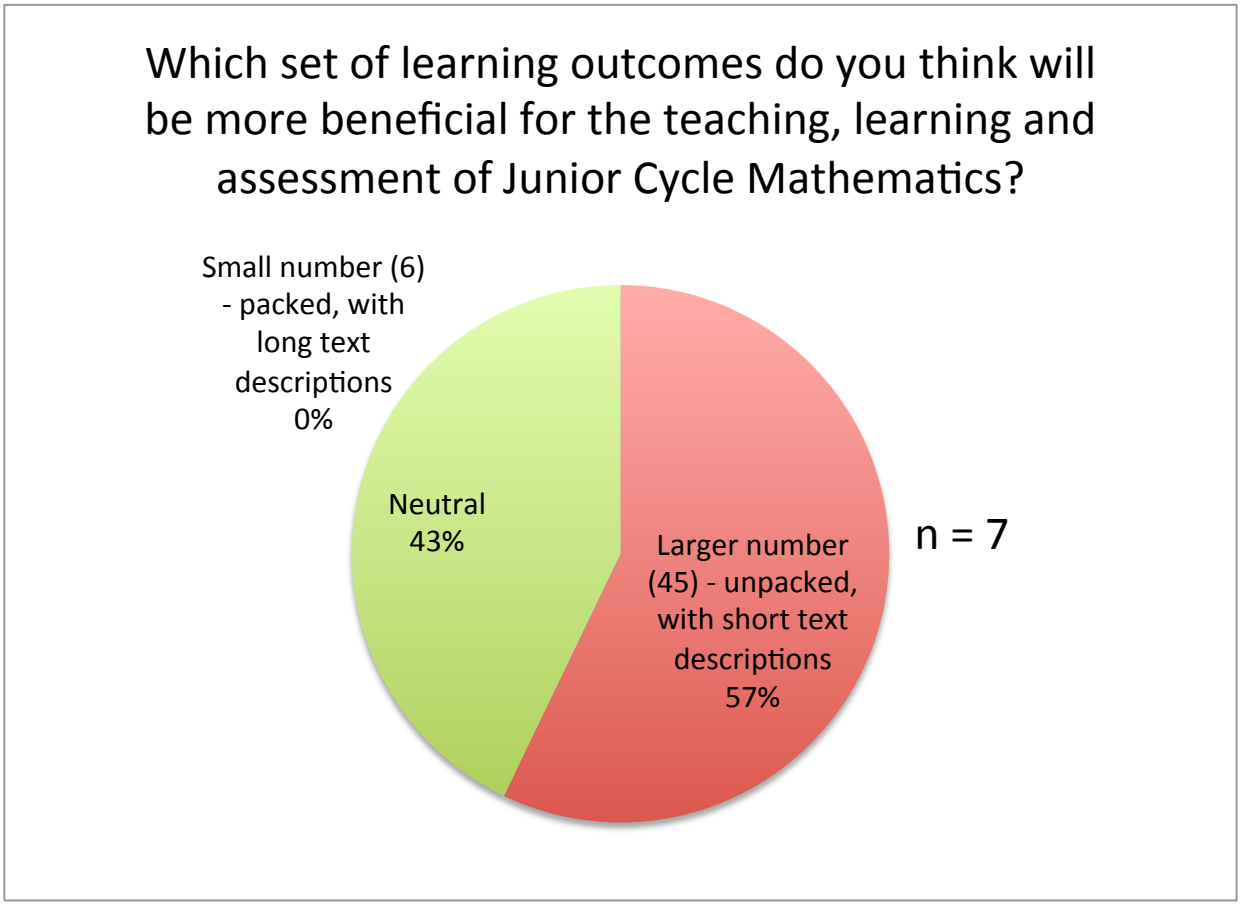
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 5.4

Which set of learning outcomes do you think will be more beneficial for the teaching, learning and assessment of Junior Cycle Mathematics?

n = 7

	TOTALS	%
Small number (6) - packed, with long text descriptions	**0**	**0.0%**
Larger number (45) - unpacked, with short text descriptions	**4**	**57.1%**
Neutral	**3**	**42.9%**
Total	**7**	**100.0%**



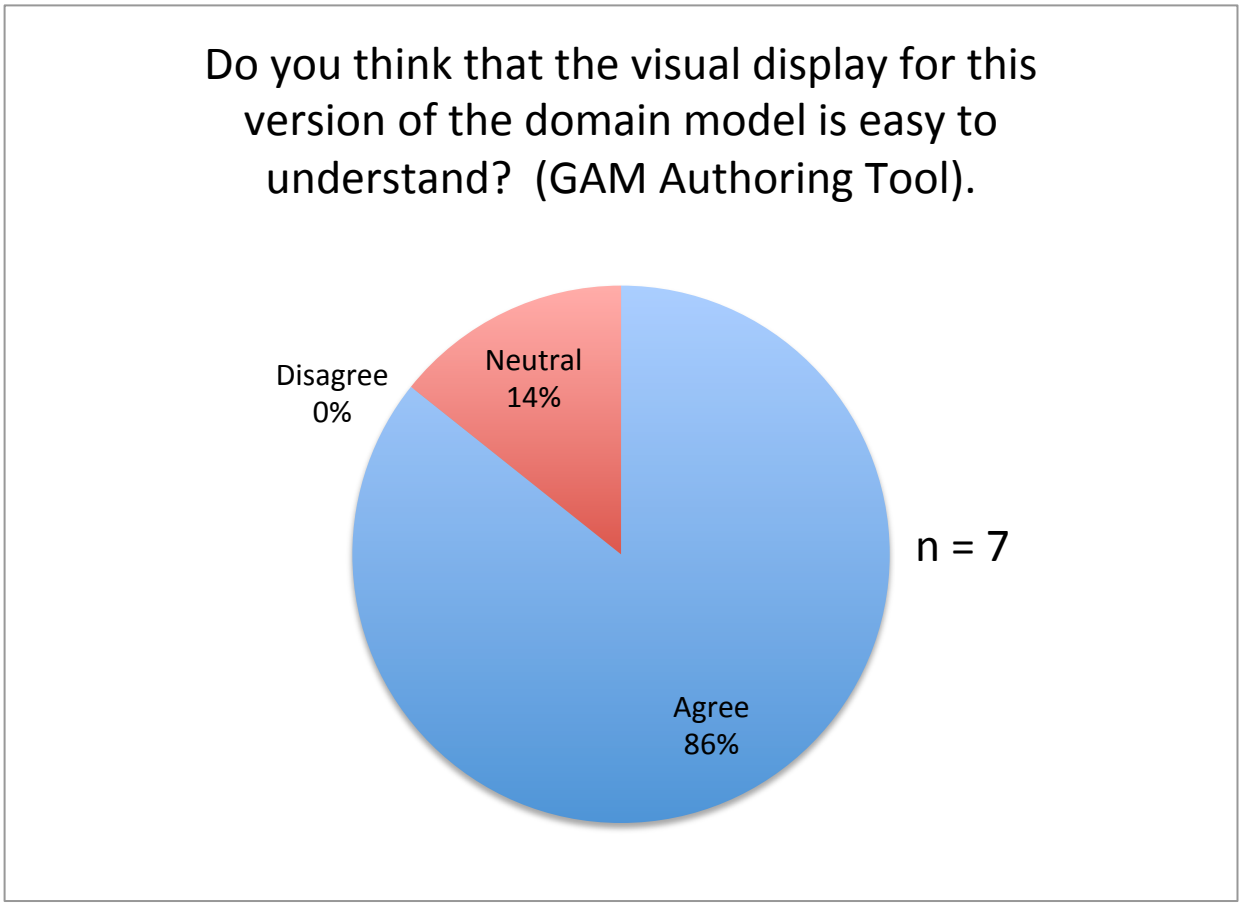
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 6.1

Do you think that the visual display for this version of the domain model is easy to understand? (GAM Authoring Tool).

n = 7

	TOTALS	%
Agree	**6**	**85.7%**
Neutral	**1**	**14.3%**
Disagree	**0**	**0.0%**
Total	**7**	**100.0%**



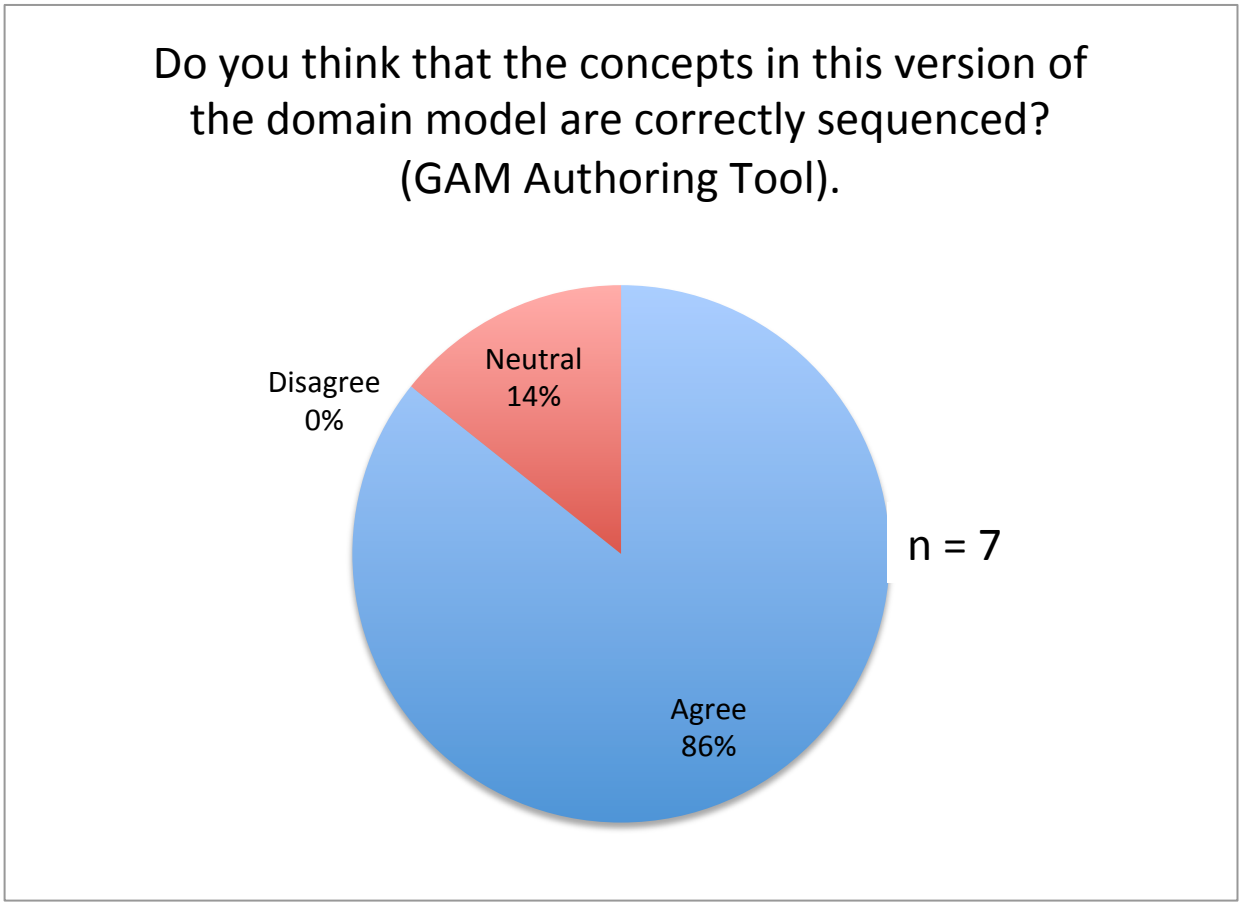
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 6.2

Do you think that the concepts in this version of the domain model are correctly sequenced? (GAM Authoring Tool).

n = 7

	TOTALS	%
Agree	**6**	**85.7%**
Neutral	**1**	**14.3%**
Disagree	**0**	**0.0%**
Total	**7**	**100.0%**



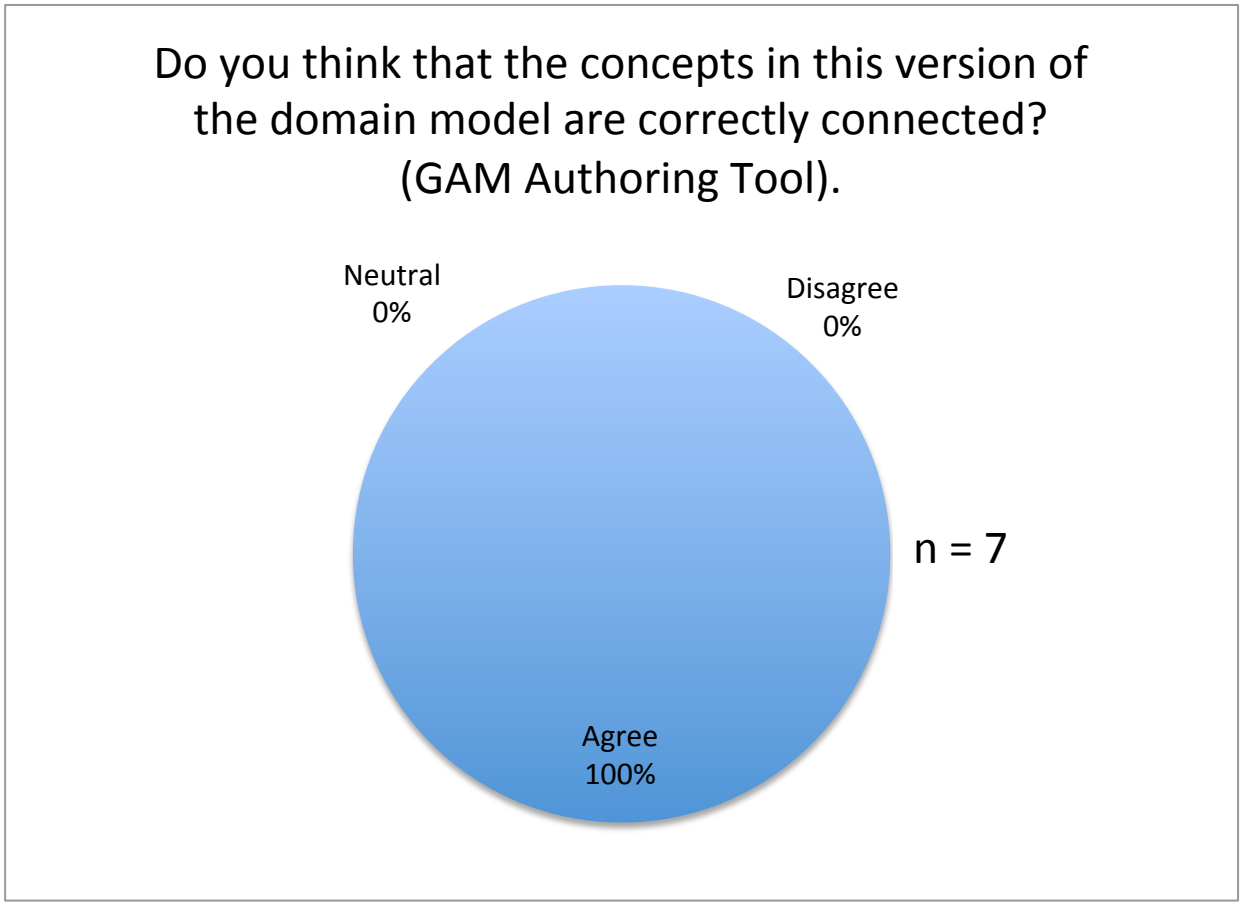
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 6.3

Do you think that the concepts in this version of the domain model are correctly connected? (GAM Authoring Tool).

n = 7

	TOTALS	%
Agree	**7**	**100.0%**
Neutral	**0**	**0.0%**
Disagree	**0**	**0.0%**
Total	**7**	**100.0%**



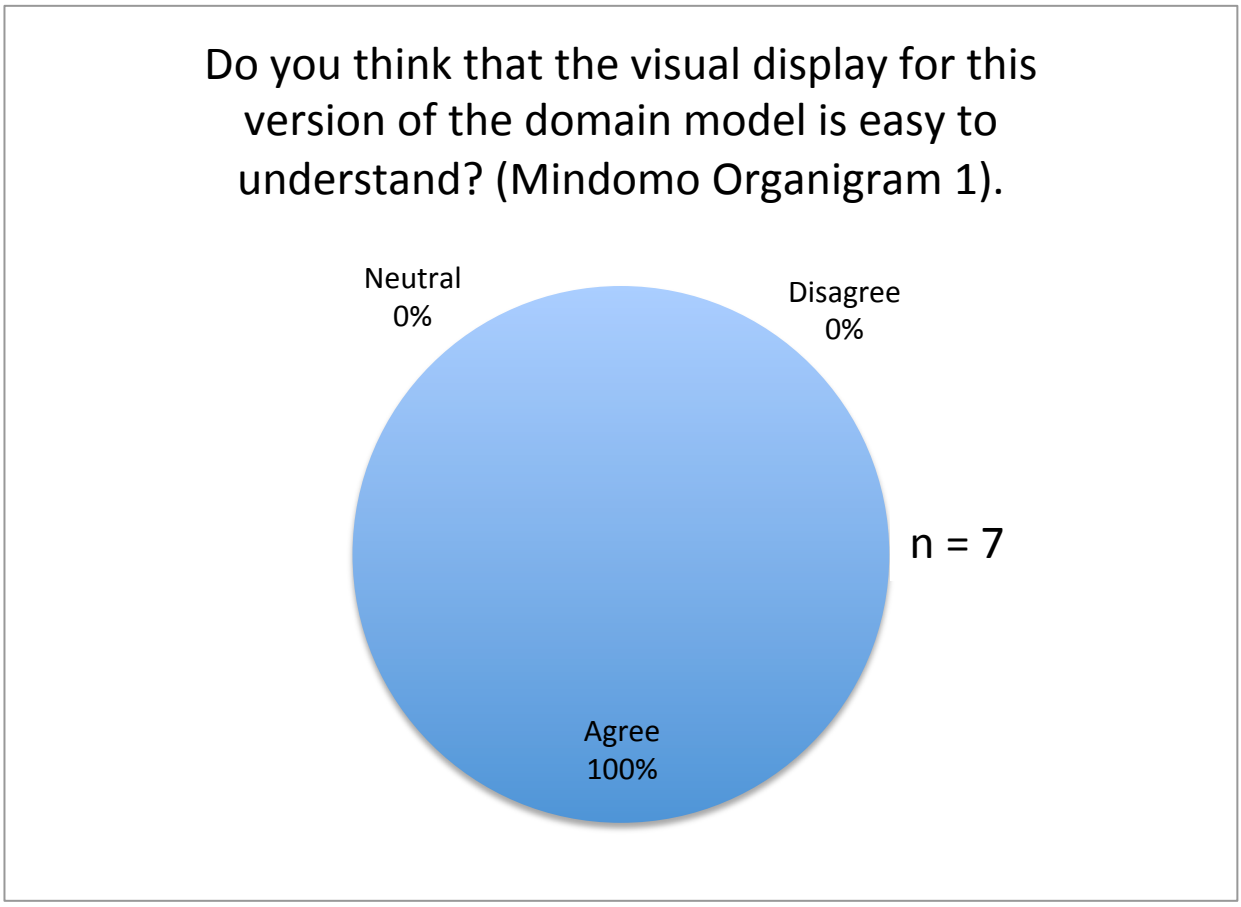
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 8.1

Do you think that the visual display for this version of the domain model is easy to understand? (Mindomo Organigram 1).

n = 7

	TOTALS	%
Agree	**7**	**100.0%**
Neutral	**0**	**0.0%**
Disagree	**0**	**0.0%**
Total	**7**	**100.0%**



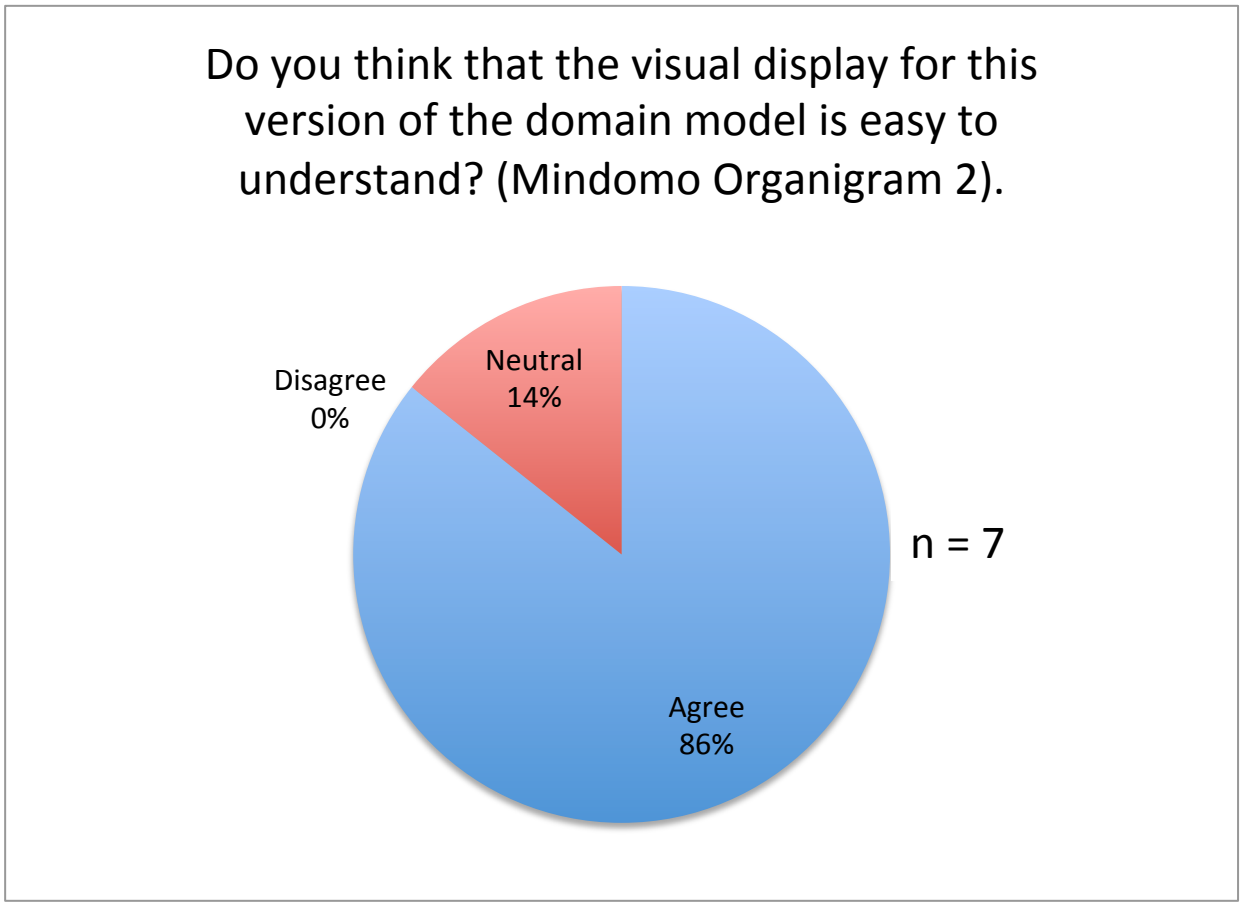
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 7.1b

Do you think that the visual display for this version of the domain model is easy to understand? (Mindomo Organigram 2).

n = 7

	TOTALS	%
Agree	**6**	**85.7%**
Neutral	**1**	**14.3%**
Disagree	**0**	**0.0%**
Total	**7**	**100.0%**



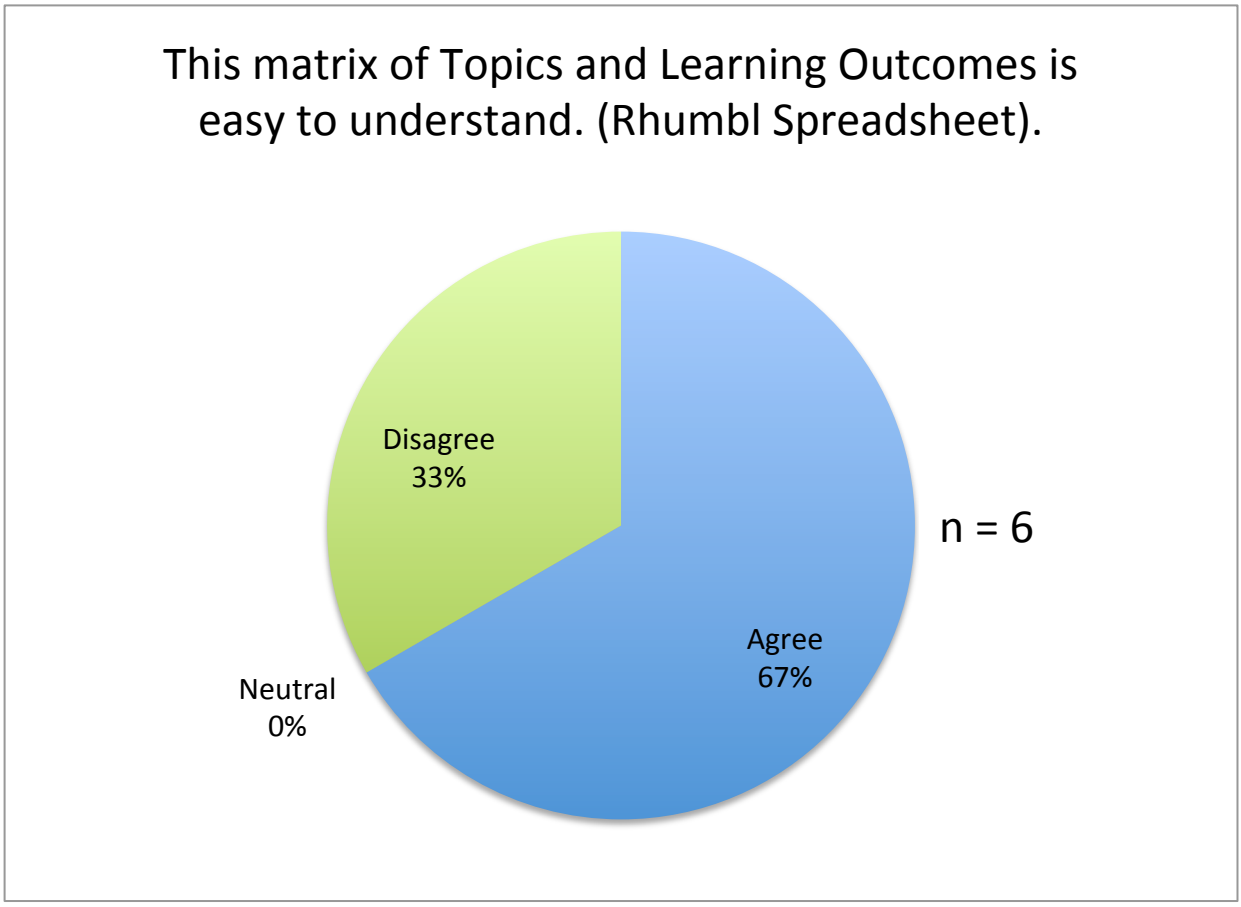
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 9.1

Do you think that the matrix of Topics and Learning Outcomes is easy to understand? (Rhumbl Spreadsheet).

n = 6

	#REF!	#REF!
Agree	**4**	**66.7%**
Neutral	**0**	**0.0%**
Disagree	**2**	**33.3%**
Total	**6**	**100.0%**



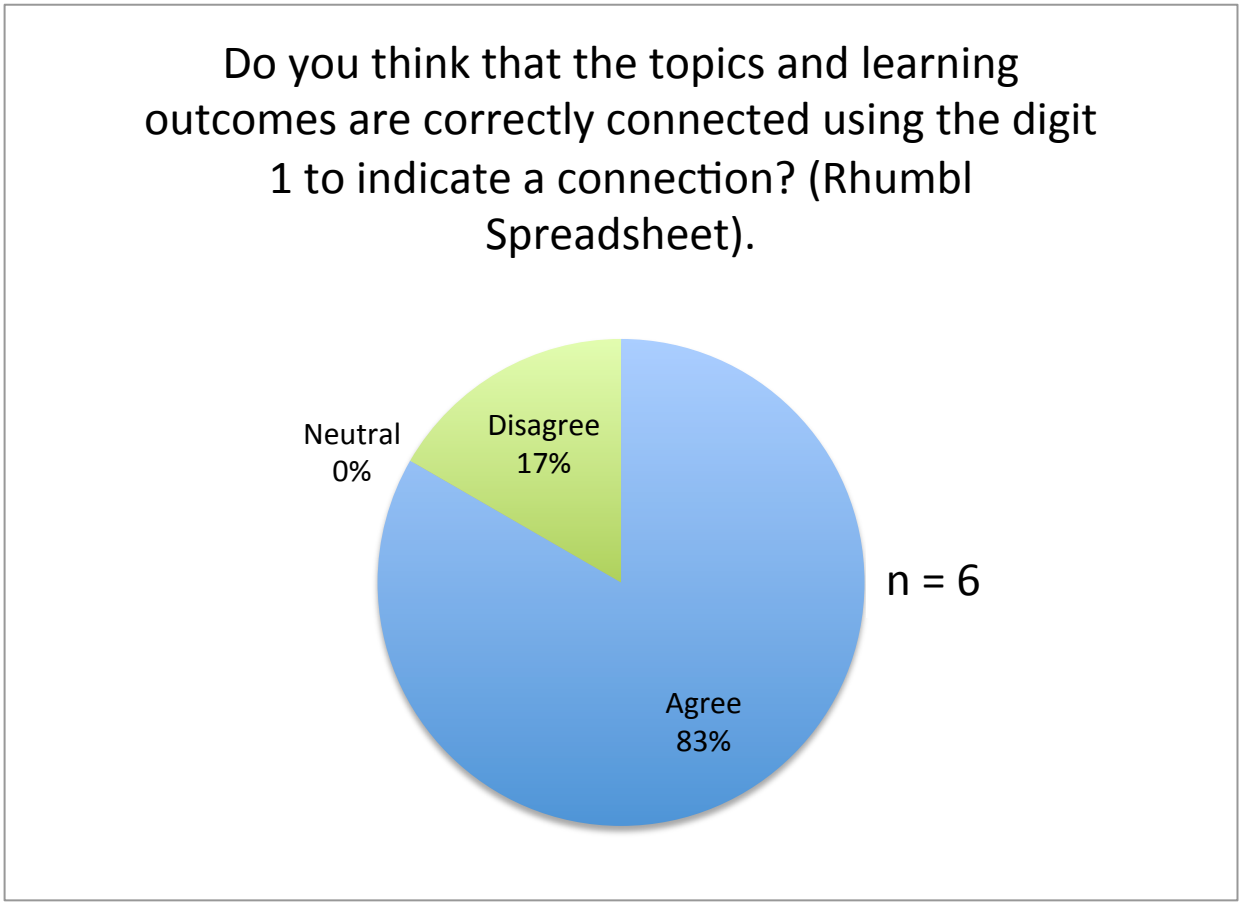
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 9.2

Do you think that the topics and learning outcomes are correctly connected using the digit 1 to indicate a connection? (Rhumbl Spreadsheet).

n = 6

	TOTALS	%
Agree	**5**	**83.3%**
Neutral	**0**	**0.0%**
Disagree	**1**	**16.7%**
Total	**6**	**100.0%**



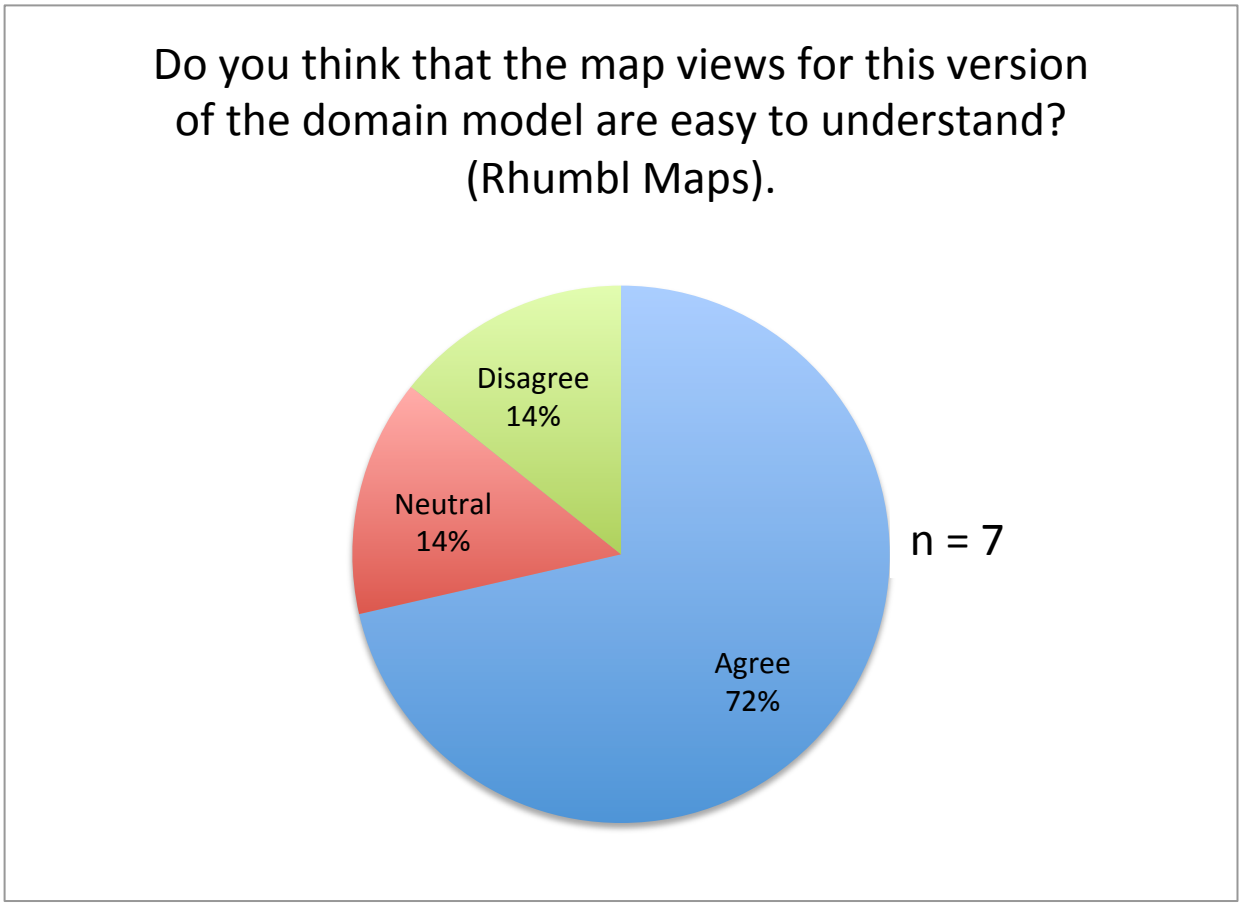
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 10.1

Do you think that the map views for this version of the domain model are easy to understand? (Rhumbl Maps).

n = 7

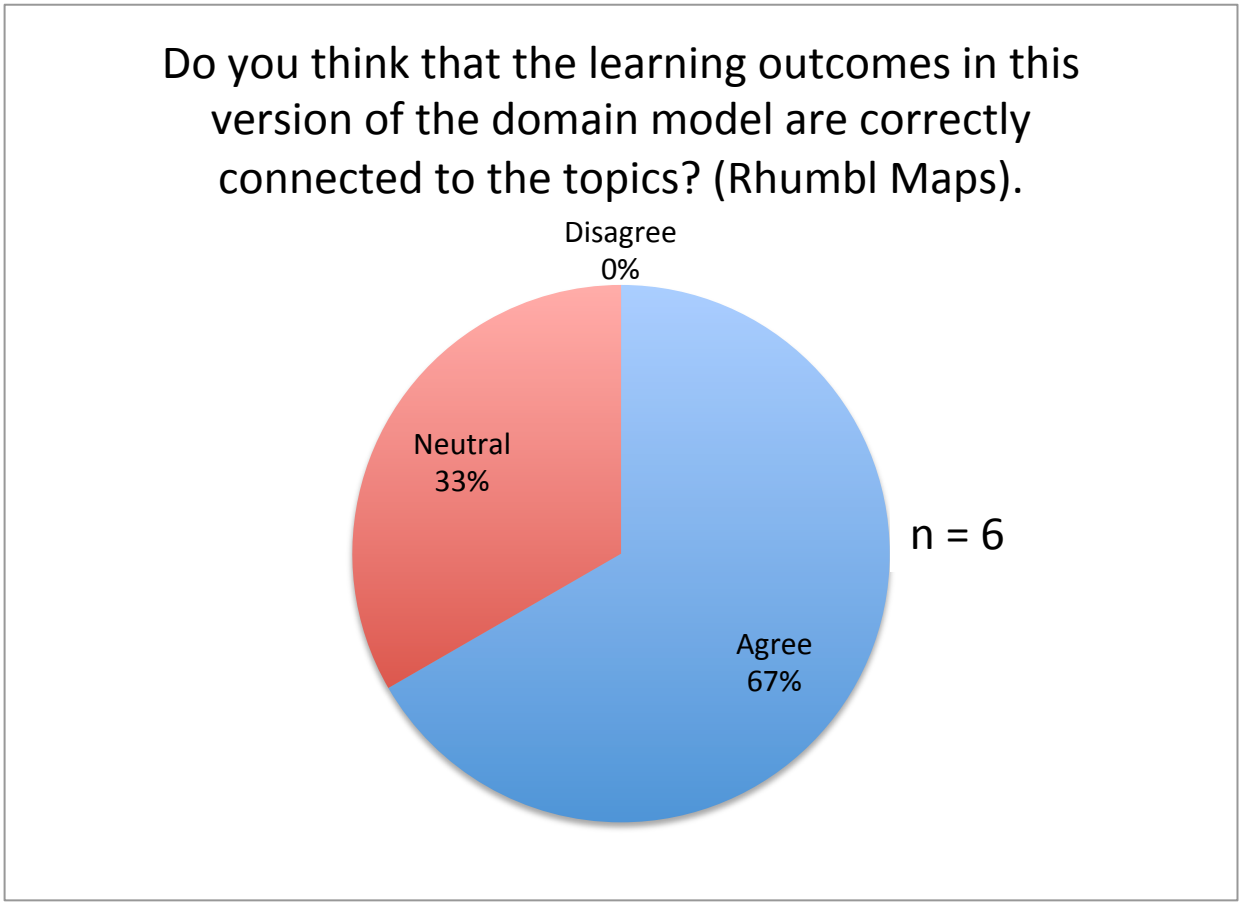
	TOTALS	%
Agree	**5**	**71.4%**
Neutral	**1**	**14.3%**
Disagree	**1**	**14.3%**
Total	**7**	**100.0%**



Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 10.2

Do you think that the learning outcomes in this version of the domain model are correctly connected to the topics? (Rhumbl Maps). *n = 6*	**TOTALS**	**%**
Agree	**4**	**66.7%**
Neutral	**2**	**33.3%**
Disagree	**0**	**0.0%**
Total	**6**	**100.0%**



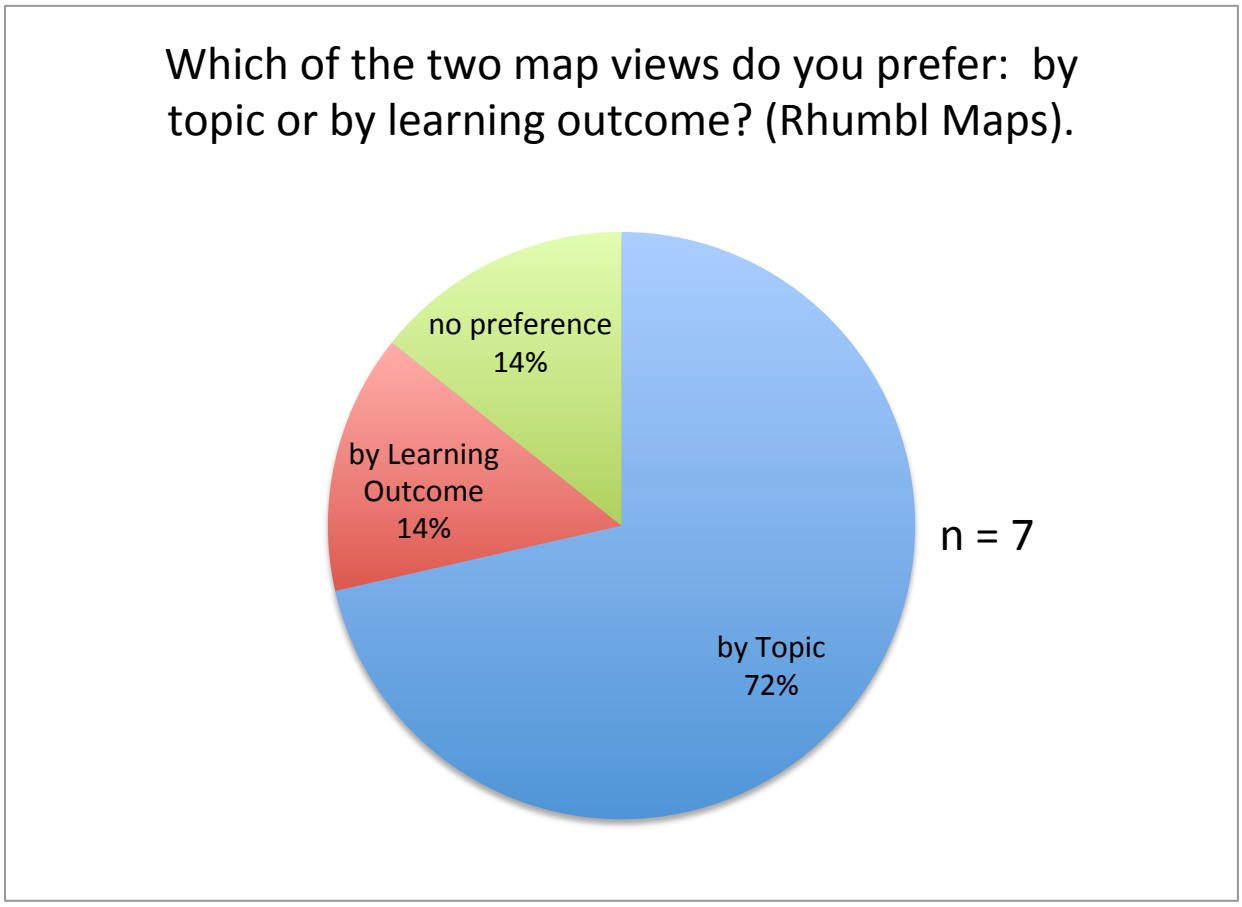
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 10.3

Which of the two map views do you prefer: by topic or by learning outcome? (Rhumbl Maps).

n = 7

	TOTALS	%
by Topic	**5**	**71.4%**
by Learning Outcome	**1**	**14.3%**
no preference	**1**	**14.3%**
Total	**7**	**100.0%**



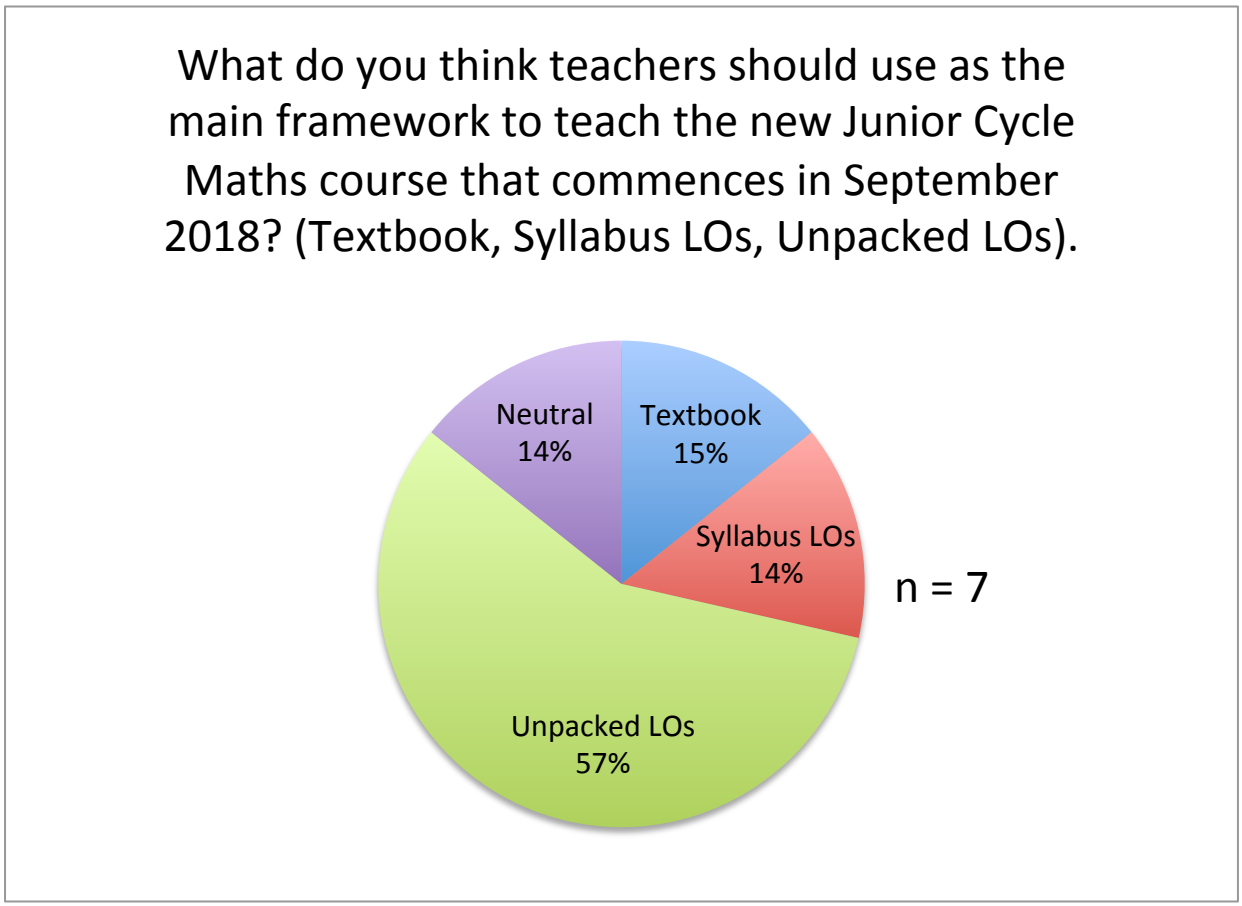
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 11.1

What do you think teachers should use as the main framework to teach the new Junior Cycle Maths course that commences in September 2018? (Textbook, Syllabus LOs, Unpacked LOs).

n = 7

	TOTALS	**%**
Textbook	**1**	**14.3%**
Syllabus LOs	**1**	**14.3%**
Unpacked LOs	**4**	**57.1%**
Neutral	**1**	**14.3%**
Total	**7**	**100.0%**



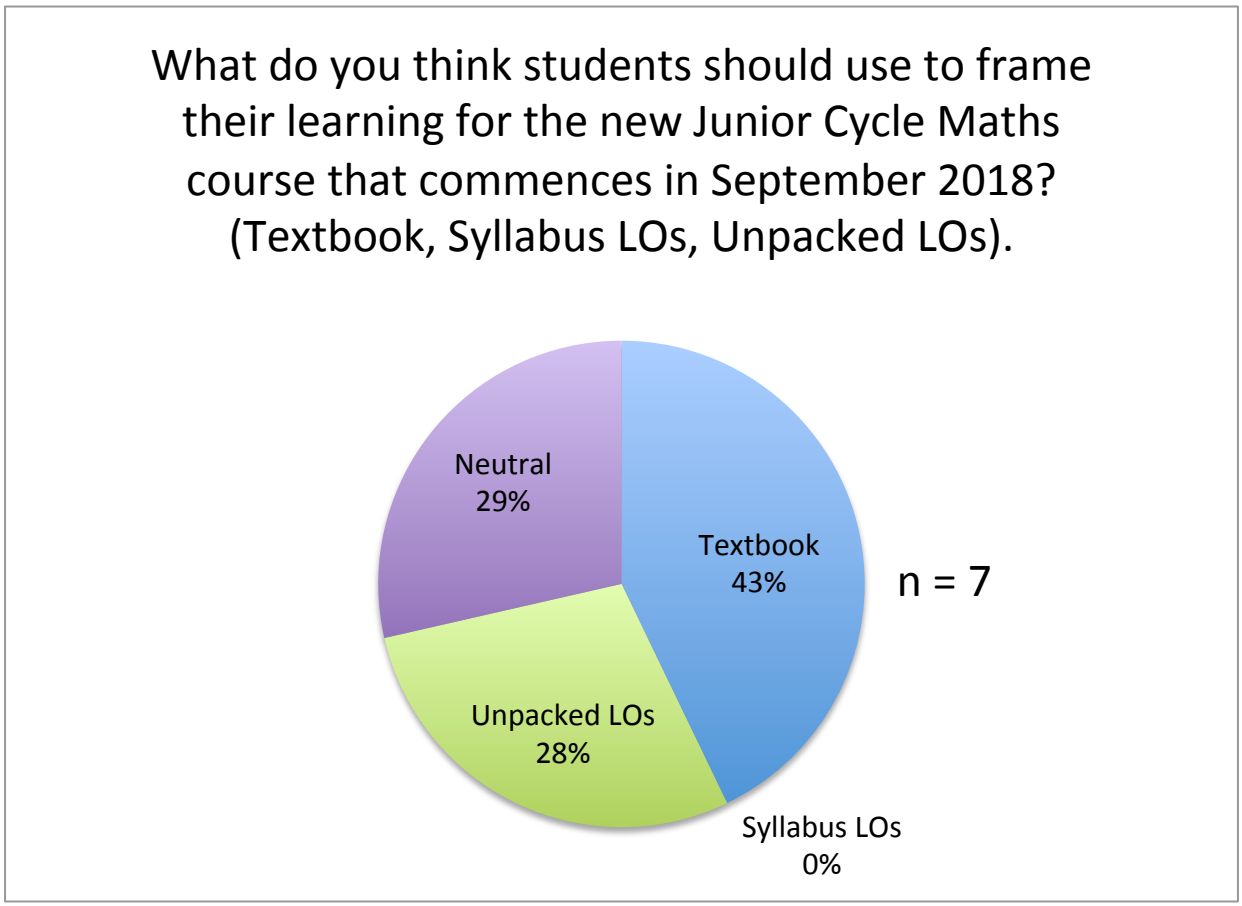
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 11.2

What do you think students should use to frame their learning for the new Junior Cycle Maths course that commences in September 2018? (Textbook, Syllabus LOs, Unpacked LOs).

n = 7

	TOTALS	%
Textbook	**3**	**42.9%**
Syllabus LOs	**0**	**0.0%**
Unpacked LOs	**2**	**28.6%**
Neutral	**2**	**28.6%**
Total	**7**	**100.1%**



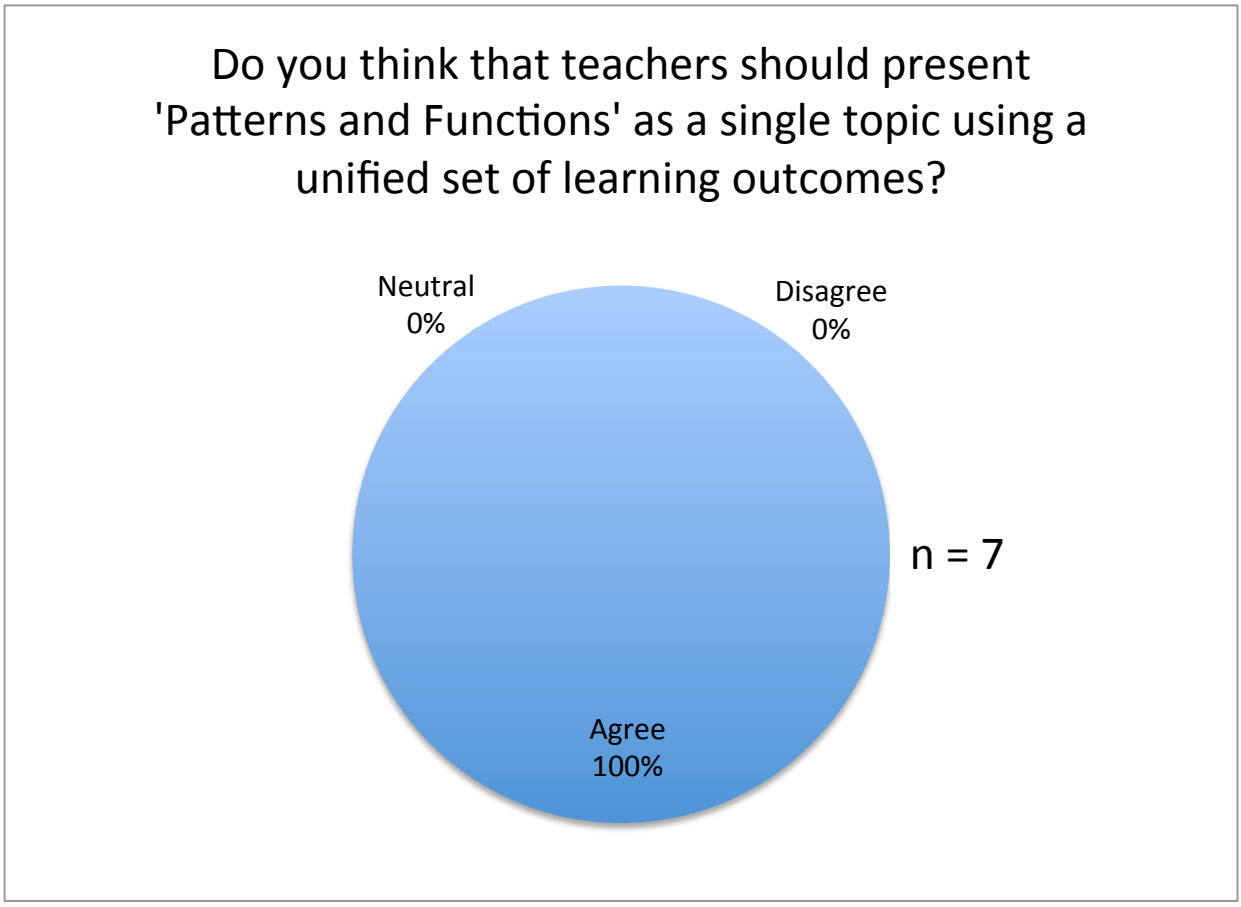
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 12.1

Do you think that teachers should present 'Patterns and Functions' as a single topic using a unified set of learning outcomes?

n = 7

	TOTALS	%
Agree	**7**	**100.0%**
Neutral	**0**	**0.0%**
Disagree	**0**	**0.0%**
Total	**7**	**100.0%**



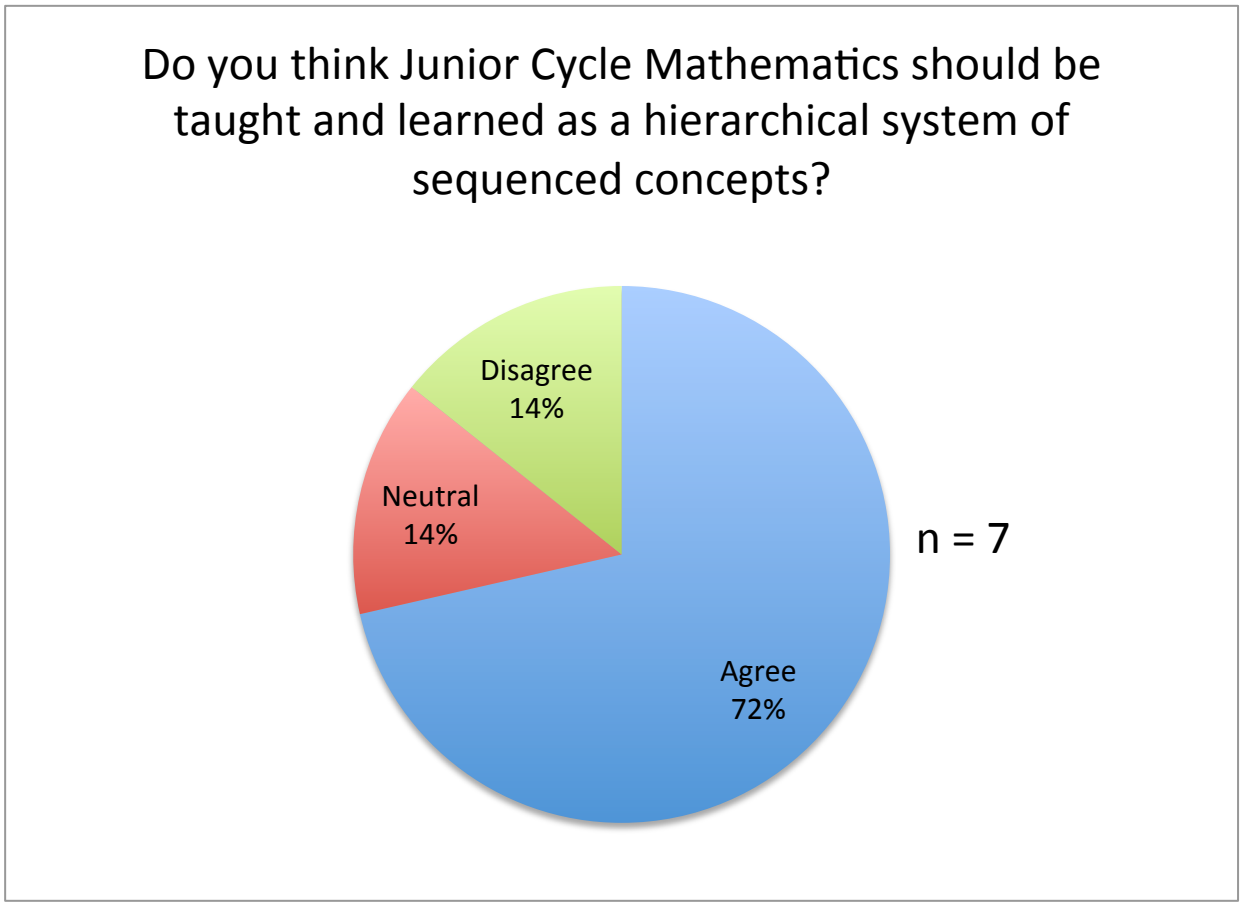
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 13.1

Do you think Junior Cycle Mathematics should be taught and learned as a hierarchical system of sequenced concepts?

n = 7

	TOTALS	%
Agree	**5**	**71.4%**
Neutral	**1**	**14.3%**
Disagree	**1**	**14.3%**
Total	**7**	**100.0%**



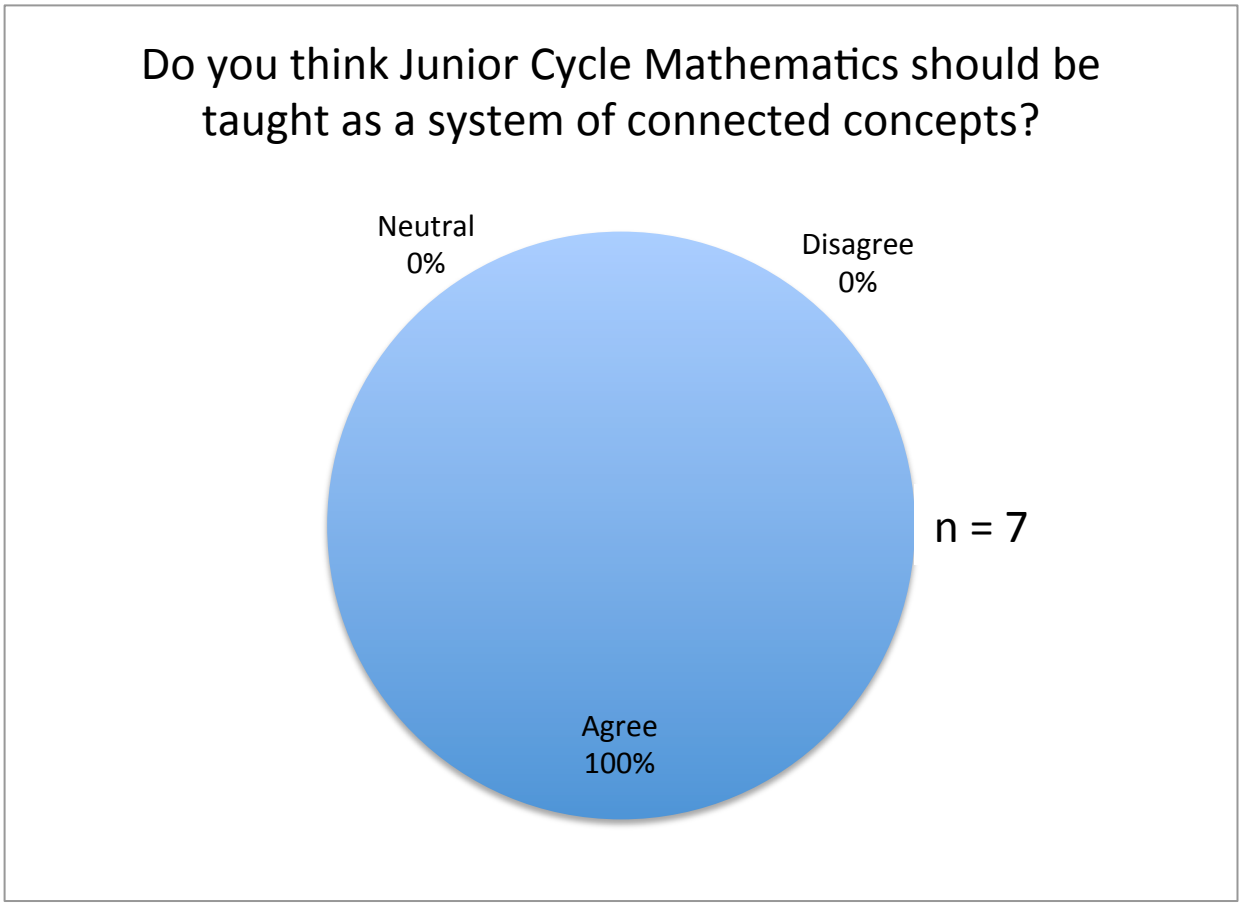
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 13.4

Do you think Junior Cycle Mathematics should be taught as a system of connected concepts?

n = 7

	TOTALS	%
Agree	**7**	**100.0%**
Neutral	**0**	**0.0%**
Disagree	**0**	**0.0%**
Total	**7**	**100.0%**



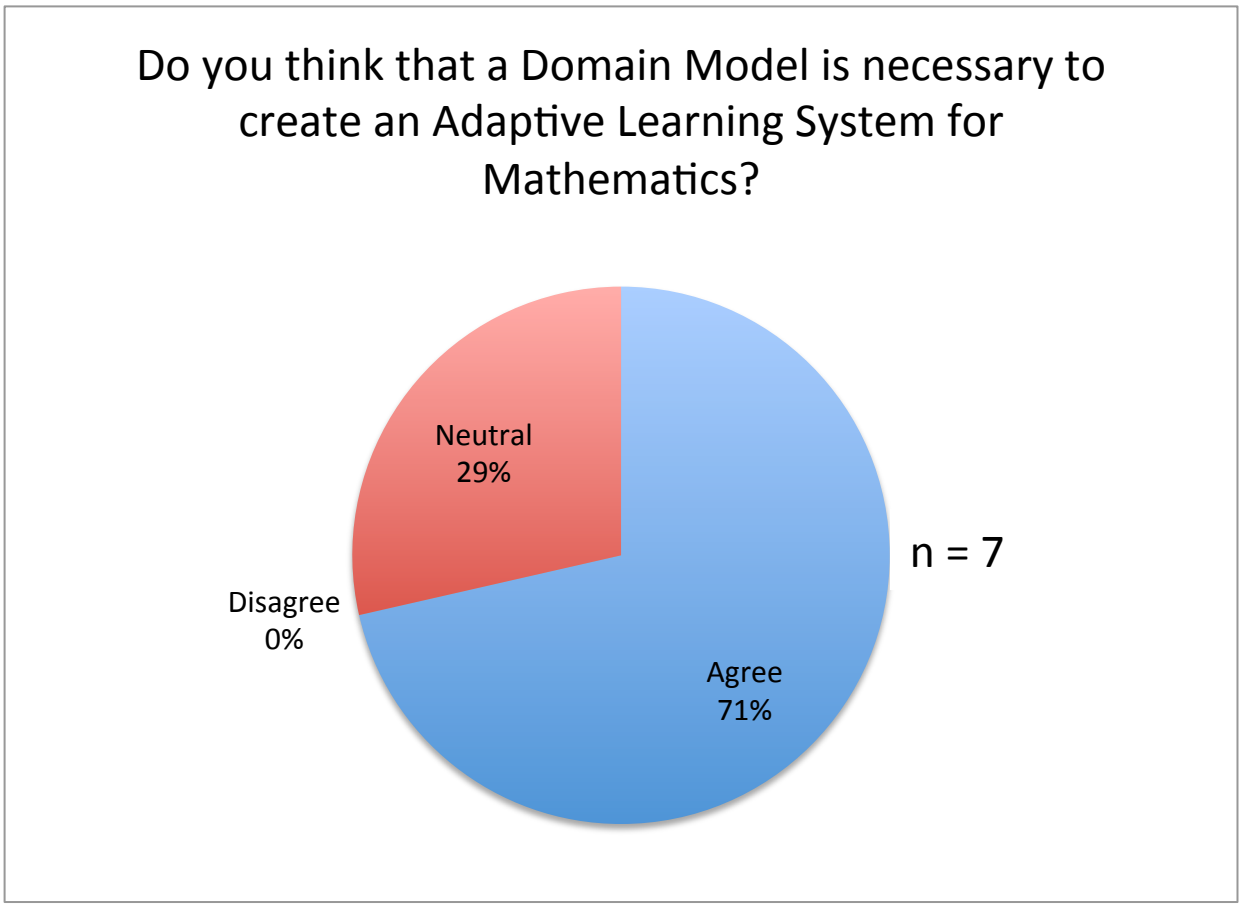
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 14.1

Do you think that a Domain Model is necessary to create an Adaptive Learning System for Mathematics?

n = 7

	TOTALS	%
Agree	**5**	**71.4%**
Neutral	**2**	**28.6%**
Disagree	**0**	**0.0%**
Total	**7**	**100.0%**



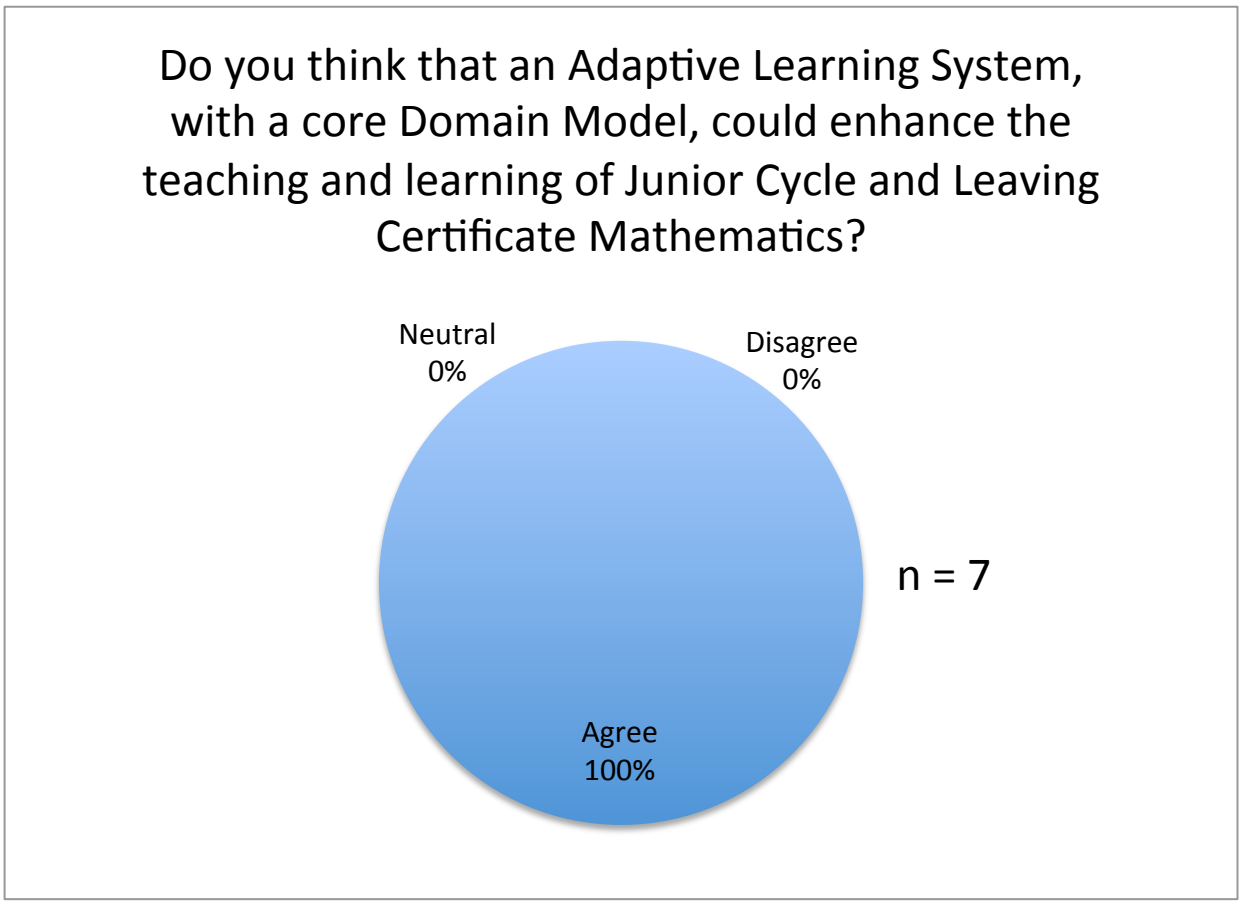
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 14.2

Do you think that an Adaptive Learning System, with a core Domain Model, could enhance the teaching and learning of Junior Cycle and Leaving Certificate Mathematics?

n = 7

	TOTALS	**%**
Agree	**7**	**100.0%**
Neutral	**0**	**0.0%**
Disagree	**0**	**0.0%**
Total	**7**	**100.0%**



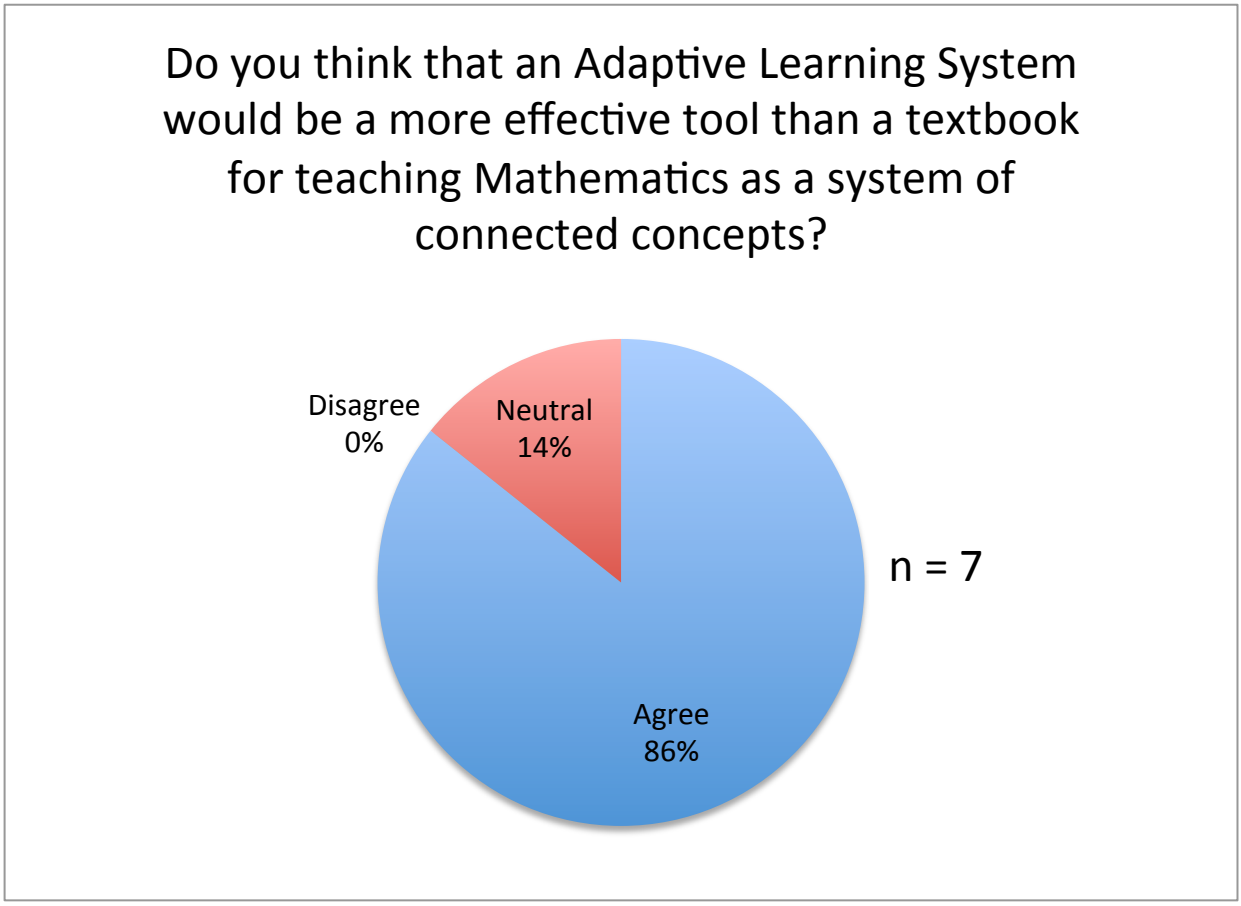
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 14.3

Do you think that an Adaptive Learning System would be a more effective tool than a textbook for teaching Mathematics as a system of connected concepts?

n = 7

	TOTALS	**%**
Agree	**6**	**85.7%**
Neutral	**1**	**14.3%**
Disagree	**0**	**0.0%**
Total	**7**	**100.0%**



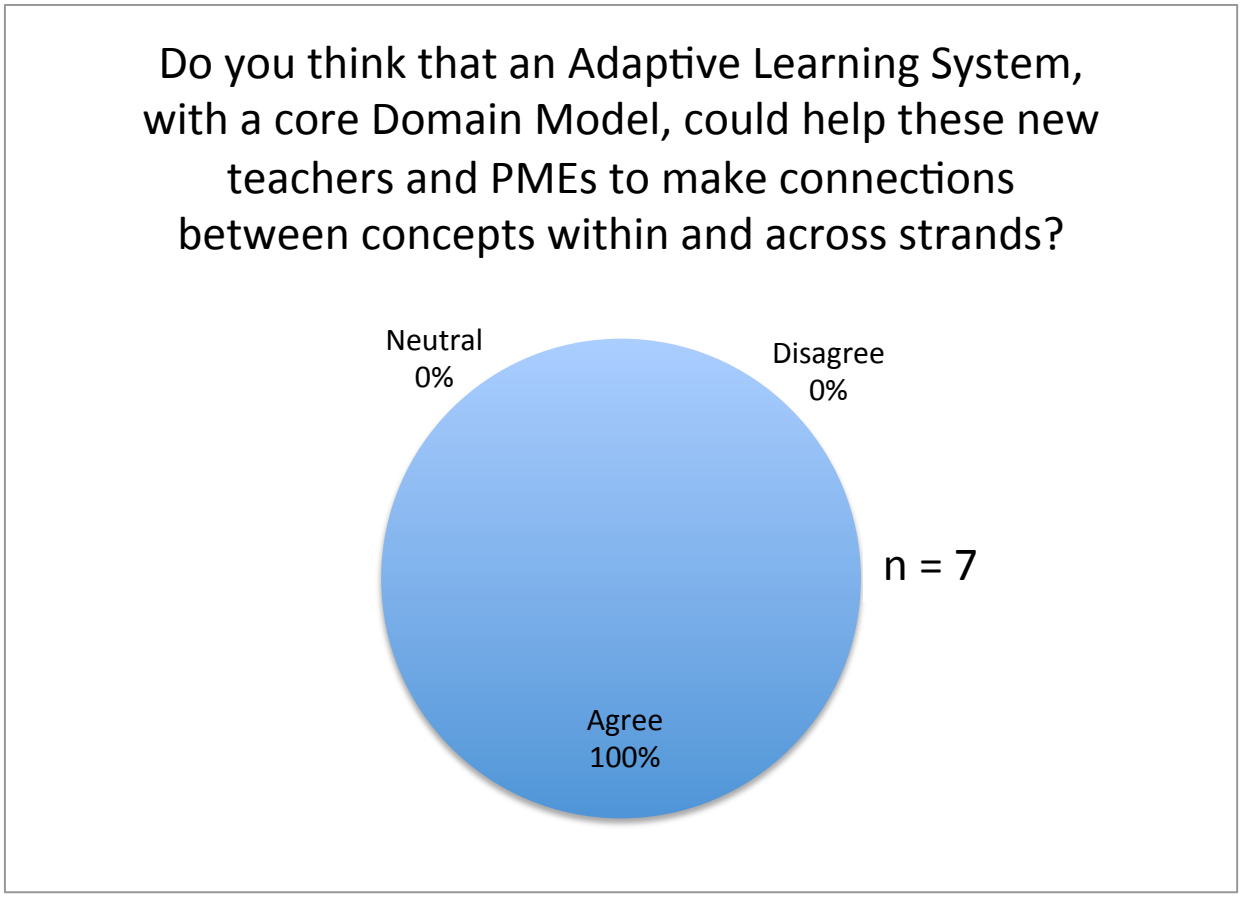
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 15.1

Do you think that an Adaptive Learning System, with a core Domain Model, could help these new teachers and PMEs to make connections

n = 7

	TOTALS	**%**
Agree	**7**	**100.0%**
Neutral	**0**	**0.0%**
Disagree	**0**	**0.0%**
Total	**7**	**100.0%**



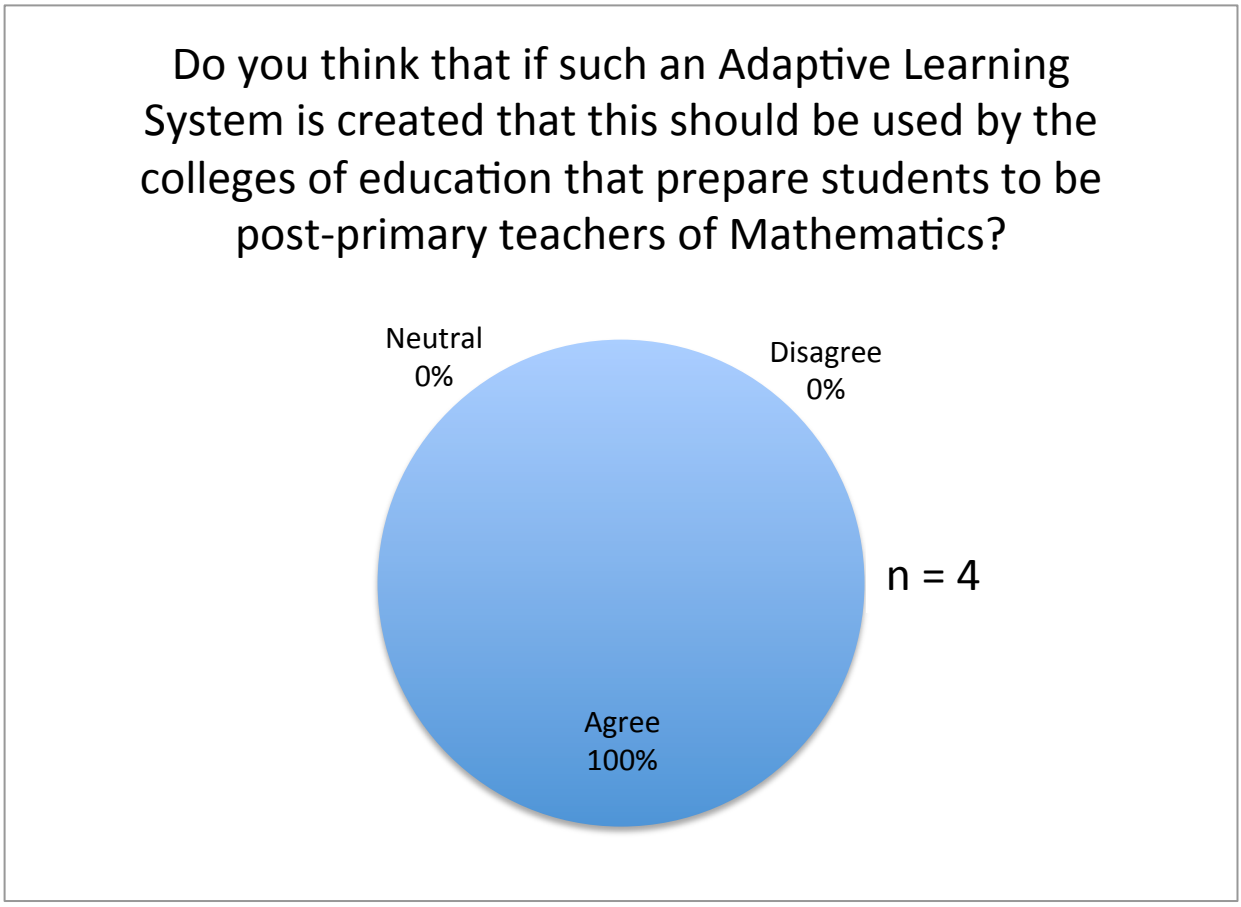
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 15.2

Do you think that if such an Adaptive Learning System is created that this should be used by the colleges of education that prepare

n = 4

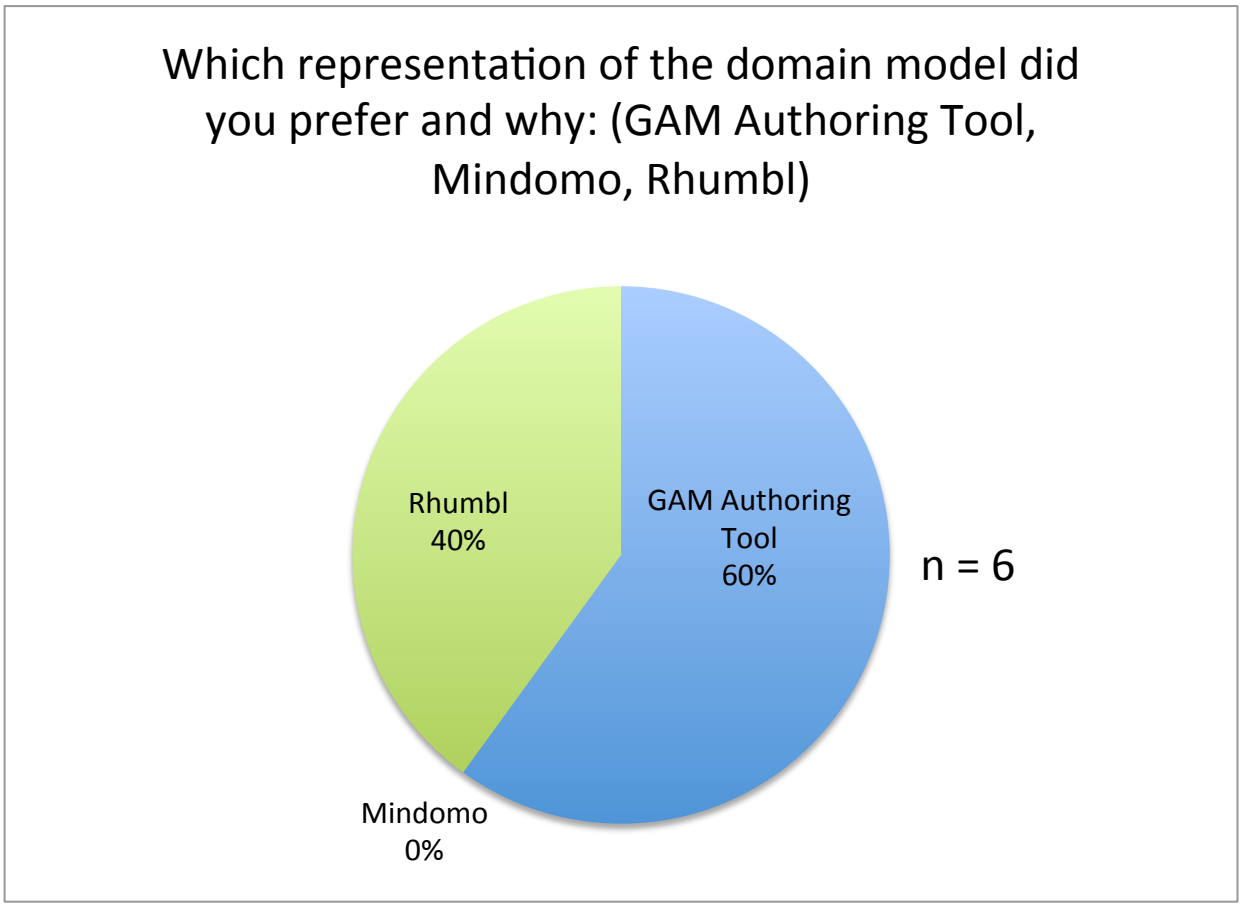
	TOTALS	%
Agree	**4**	**100.0%**
Neutral	**0**	**0.0%**
Disagree	**0**	**0.0%**
Total	**4**	**100.0%**



Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 16.1

Which representation of the domain model did you prefer and why: (GAM Authoring Tool, Mindomo, Rhumbl) *n = 6*	**TOTALS**	**%**
GAM Authoring Tool	**3**	**50.0%**
Mindomo	**0**	**0.0%**
Rhumbl	**2**	**33.3%**
All Three	**1**	**16.7%**
Total	**6**	**100.0%**



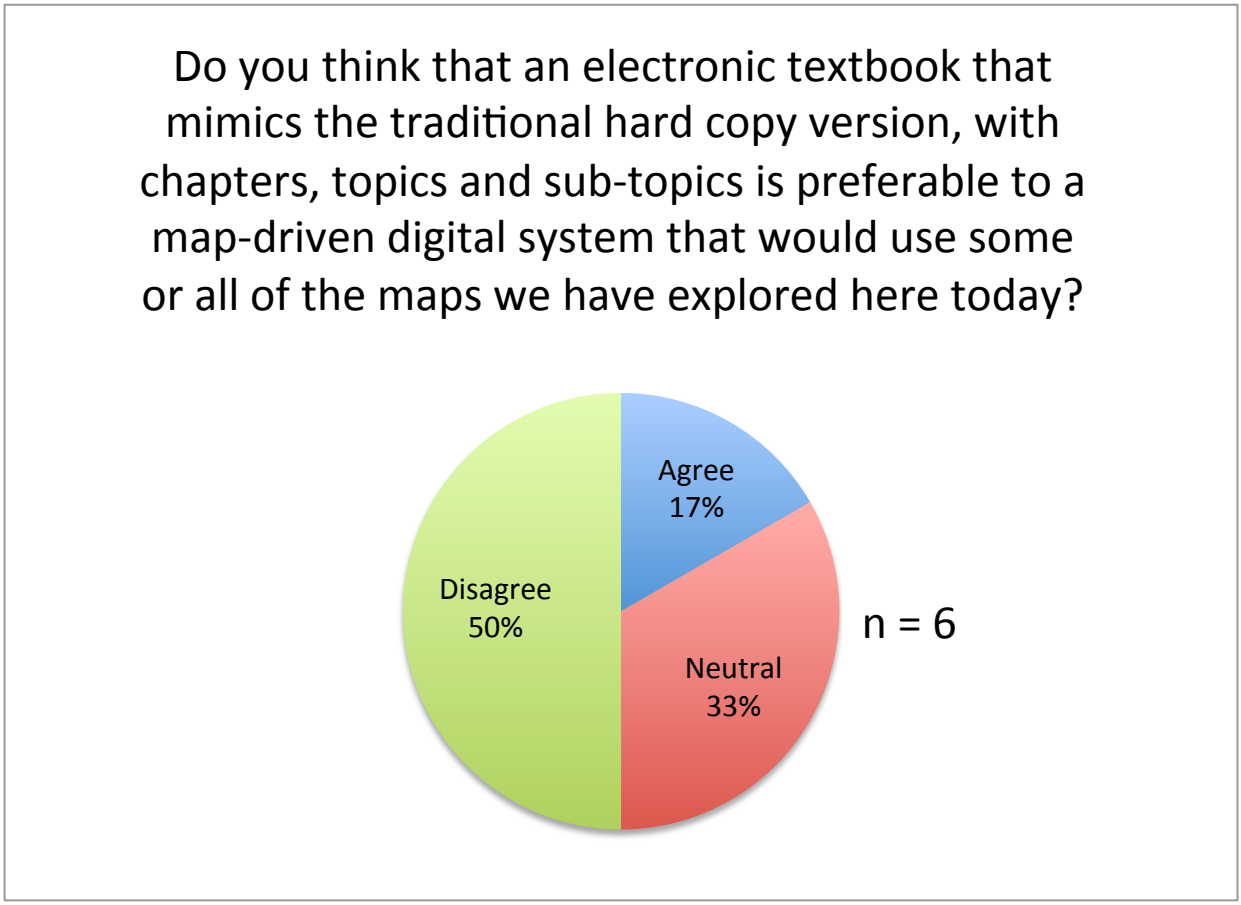
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 16.2

Do you think that an electronic textbook that mimics the traditional hard copy version, with chapters, topics and sub-topics is preferable to a map-driven digital system that would use some or all of the maps

n = 6

	TOTALS	**%**
Agree	**1**	**16.7%**
Neutral	**2**	**33.3%**
Disagree	**3**	**50.0%**
Total	**6**	**100.0%**



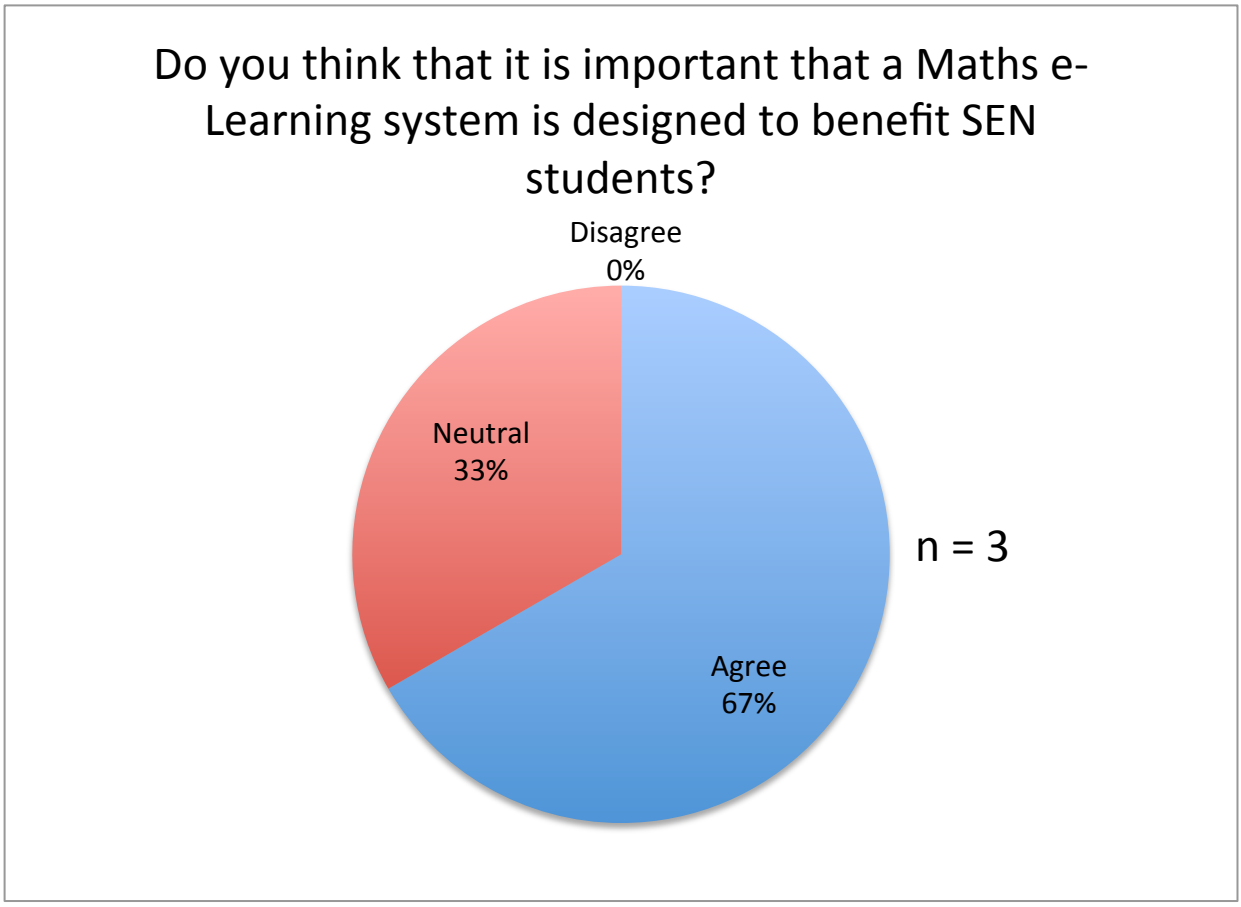
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 17.1

Do you think that it is important that a Maths e-Learning system is designed to benefit SEN students?

n = 3

	TOTALS	%
Agree	**2**	**66.7%**
Neutral	**1**	**33.3%**
Disagree	**0**	**0.0%**
Total	**3**	**100.0%**



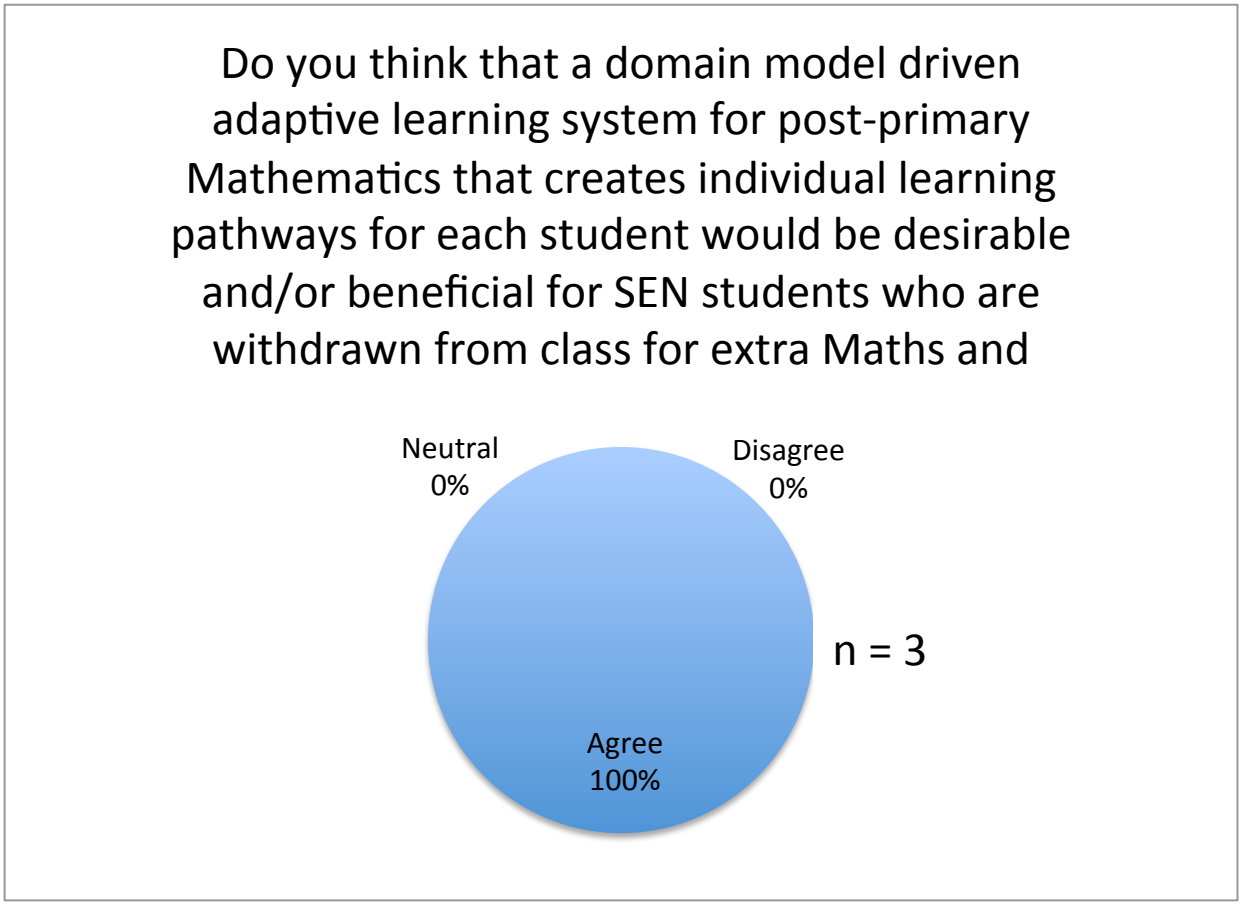
Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 17.2

Do you think that a domain model driven adaptive learning system for post-primary Mathematics that creates individual learning pathways for each student would be desirable and/or beneficial for

n = 3

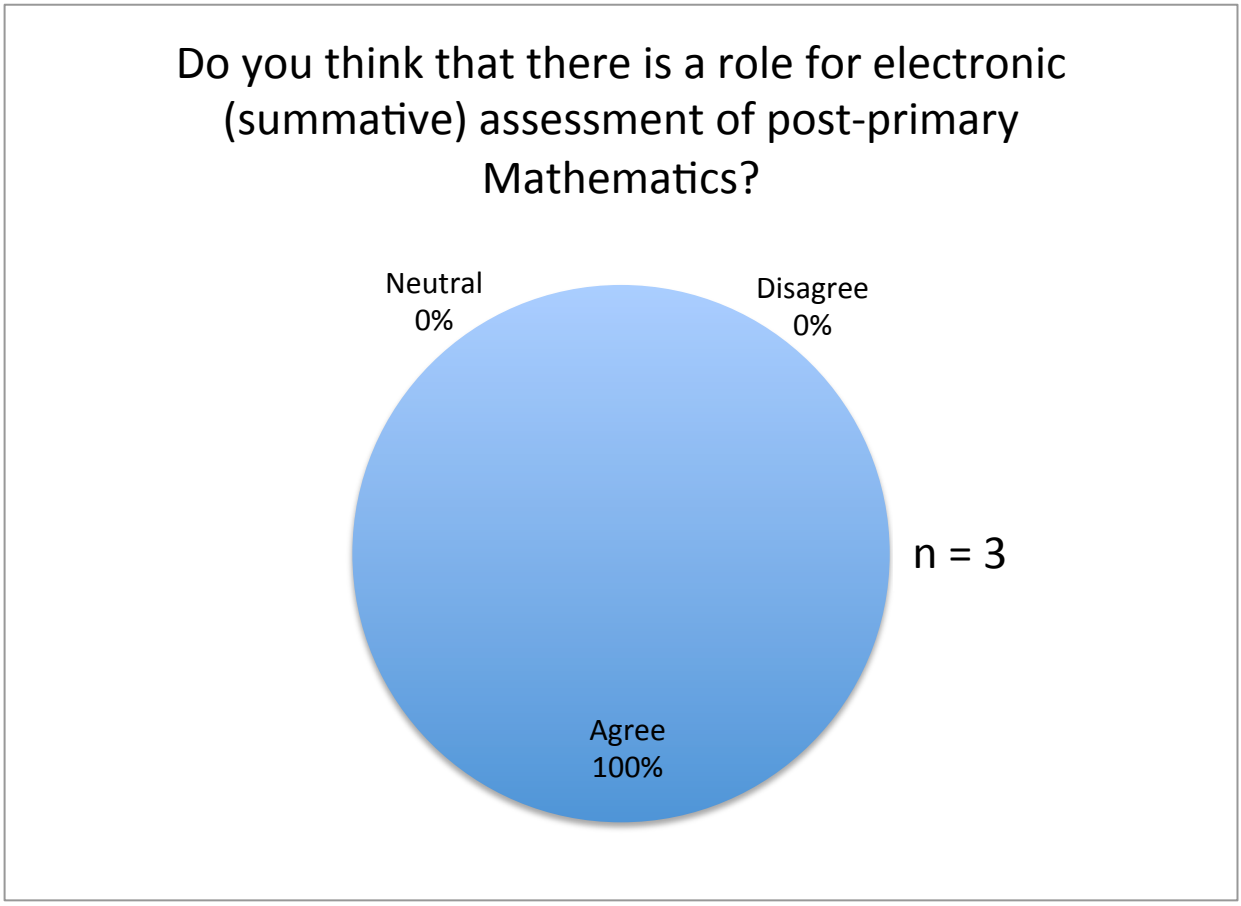
	TOTALS	**%**
Agree	**3**	**100.0%**
Neutral	**0**	**0.0%**
Disagree	**0**	**0.0%**
Total	**3**	**100.0%**



Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 18.1

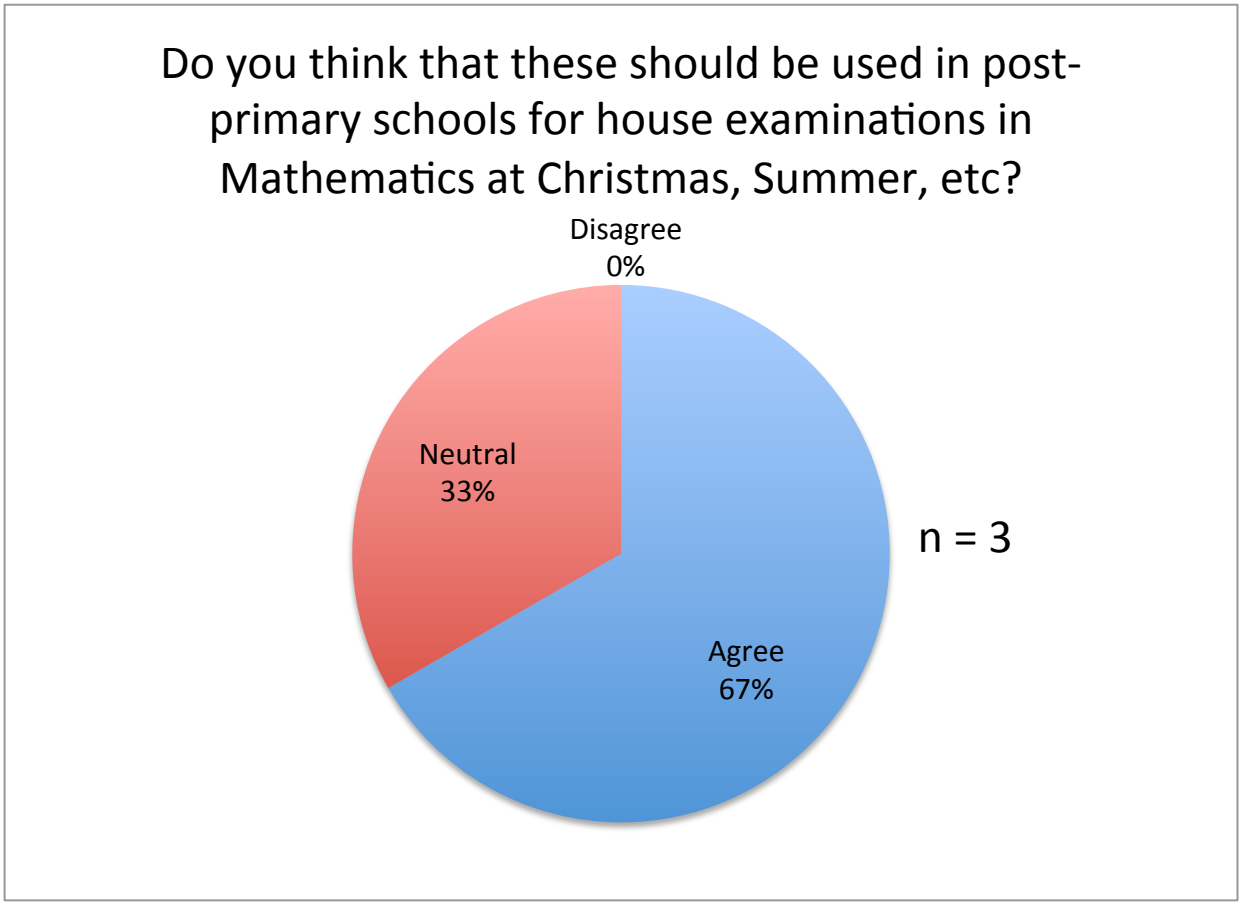
Do you think that there is a role for electronic (summative) assessment of post-primary Mathematics? *n = 3*	**TOTALS**	**%**
Agree	**3**	**100.0%**
Neutral	**0**	**0.0%**
Disagree	**0**	**0.0%**
Total	**3**	**100.0%**



Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 18.2

Do you think that these should be used in post-primary schools for house examinations in Mathematics at Christmas, Summer, etc? *n = 3*	**TOTALS**	**%**
Agree	**2**	**66.7%**
Neutral	**1**	**33.3%**
Disagree	**0**	**0.0%**
Total	**3**	**100.0%**



Research Study: Adaptive Learning Domain Model for Post-Primary Mathematics

Question 18.3

Do you think that these should be used in post-primary education for State examinations in Mathematics for Junior Cycle, Leaving Certificate, etc?

n = 3

	TOTALS	%
Agree	**1**	**33.3%**
Neutral	**2**	**66.7%**
Disagree	**0**	**0.0%**
Total	**3**	**100.0%**