MONASH University

DR MARILYN BAIRD PHD
ASSOCIATE PROFESSOR
HEAD
DEPARTMENT OF MEDICAL IMAGING AND RADIATION SCIENCES
SCHOOL OF BIOMEDICAL SCIENCES
FACULTY OF MEDICINE, NURSING AND HEALTH SCIENCES
Phone: (03) 9905 1270
Fax: (03) 9902 9500
Email: marilyn.baird@monash.edu

Mr Adam Reinhard

Executive Officer

Medical Radiation Practice Board of Australia

Australian Health Practitioner Regulation Agency

G.P.O. Box 9958

Melbourne VIC 3001

January 19th 2012

Dear Mr Reinhard

Supervised Practice Registration Standard: Addendum

In light of some of the submissions that have been made available for public perusal on the MRBP website in relation to this standard, I would like to provide an addendum to our earlier submission. The addendum contains two sets of data from a survey of Victorian employers undertaken in 2006 and another completed in 2011. On both occasions the employer groups overwhelmingly support the notion that graduates from the four year BRadMedImag are able to assume the role and function of an accredited practitioner upon graduation as defined by the Australian Institute of Radiography. No further period of training was deemed to be necessary in general radiography. The assertions about the competency or otherwise of graduates from 4 year radiography courses in relation to core radiographic functions are therefore without foundation.

Yours sincerely

M. A. Baird

Quality Audit of BRadMedImag

Respondent Count:

Total Survey Responses submitted: 28

Total Survey Responses meeting filter criteria: 28

SECTION 1: General Radiography and Computed Tomography

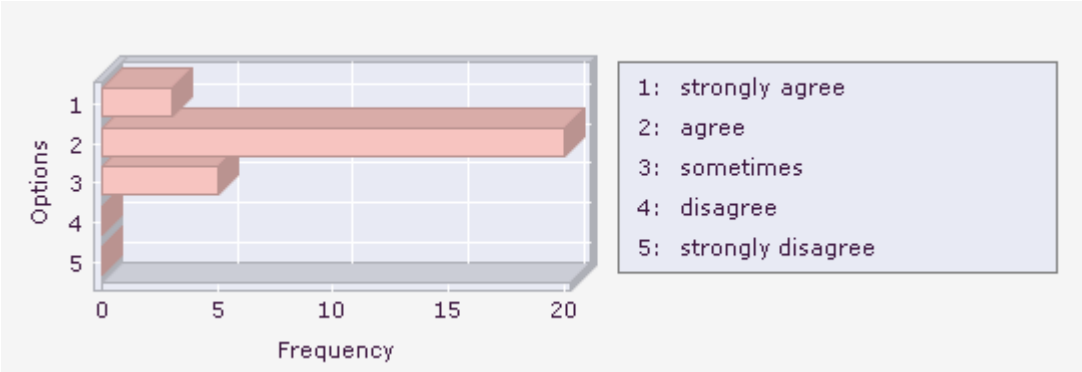
Knowledge and understanding of science and technology as it relates to general radiography and Computed Tomography

Q1. Graduates can apply their knowledge of radiologic physics to practical situations

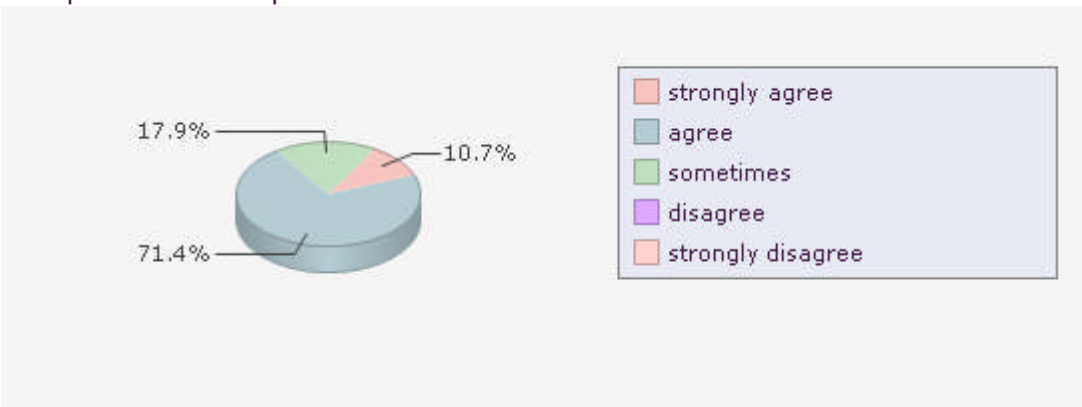
Respondent Group	Staff	
Option	f	%
strongly agree	3	10.7
agree	20	71.4
sometimes	5	17.9
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	2.1	
Standard Deviation	0.5	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



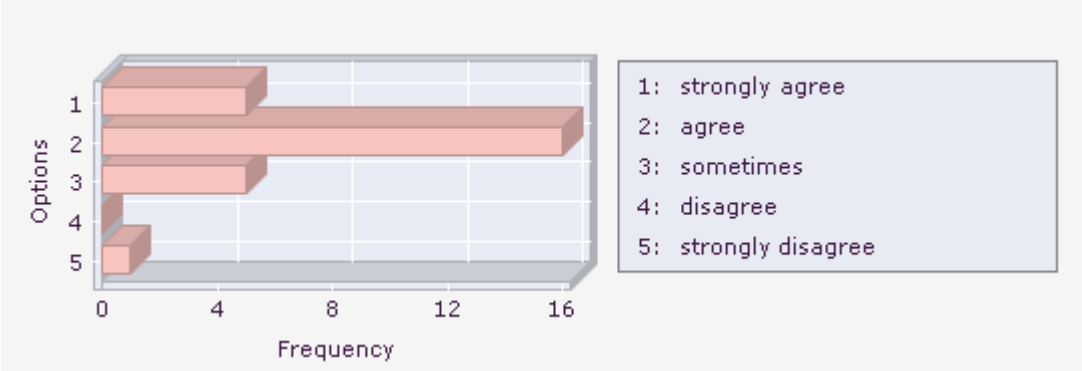
Knowledge and understanding of science and technology as it relates to general radiography and Computed Tomography

Q2. Graduates have a sound understanding of digital image processing

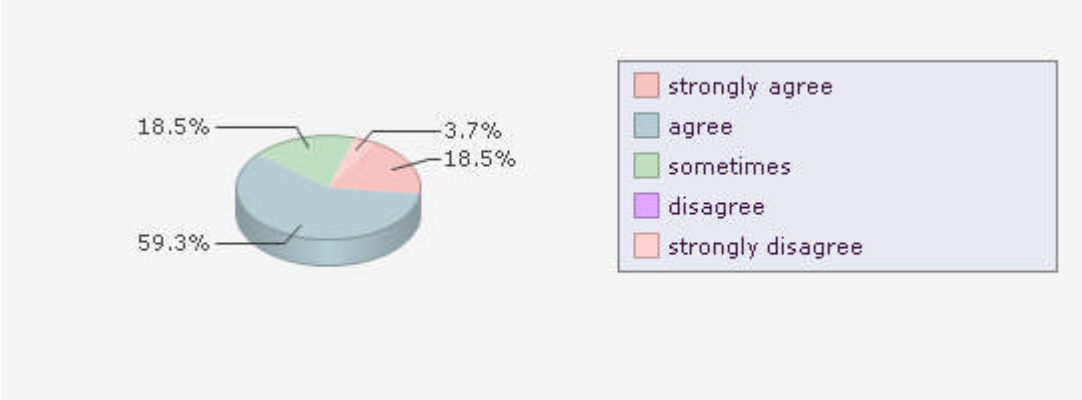
Respondent Group	Staff	
Option	f	%
strongly agree	5	18.5
agree	16	59.3
sometimes	5	18.5
disagree	0	0.0
strongly disagree	1	3.7
Total	27	
Mean	2.1	
Standard Deviation	0.8	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



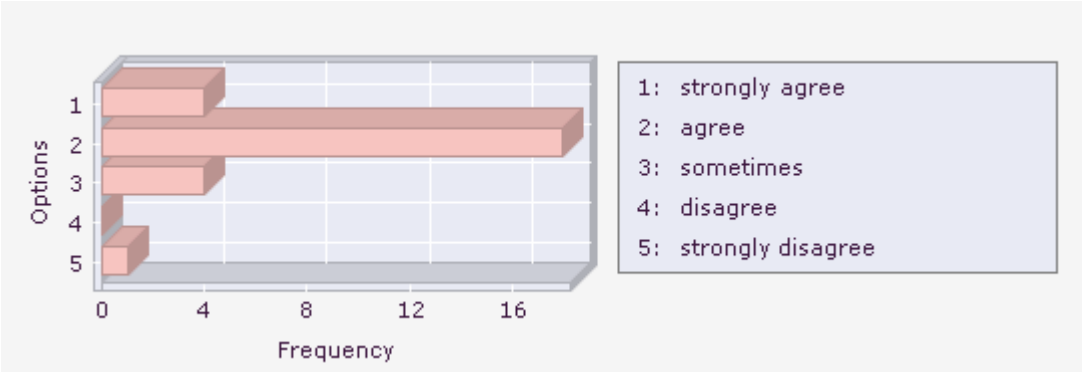
Knowledge and understanding of science and technology as it relates to general radiography and Computed Tomography

Q3. Graduates are able to apply principles of digital image processing to computed radiography and CT

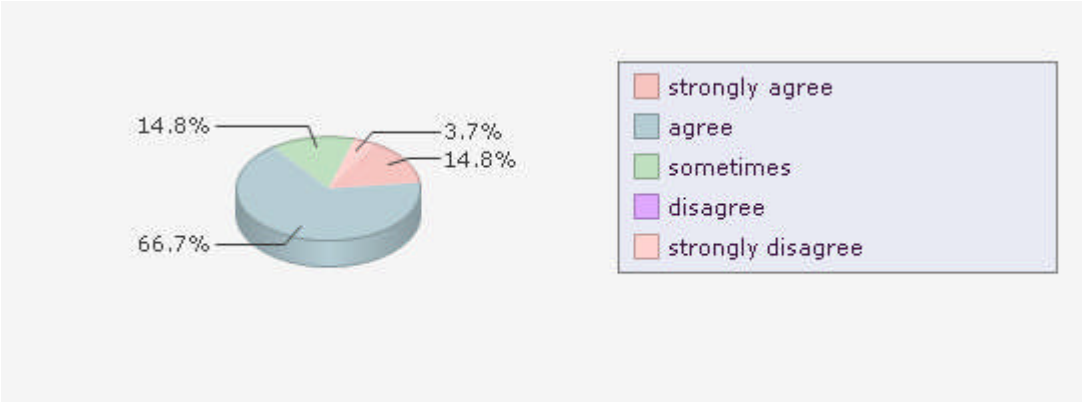
Respondent Group	Staff	
Option	f	%
strongly agree	4	14.8
agree	18	66.7
sometimes	4	14.8
disagree	0	0.0
strongly disagree	1	3.7
Total	27	
Mean	2.1	
Standard Deviation	0.8	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



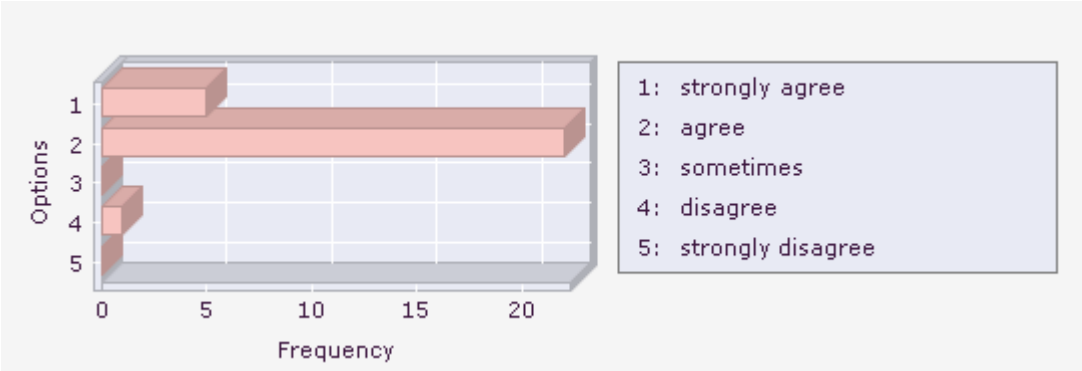
Knowledge and understanding of science and technology as it relates to general radiography and Computed Tomography

Q4. Graduates exhibit knowledge and understanding of the fundamental principles underpinning general radiographic technology and instrumentation

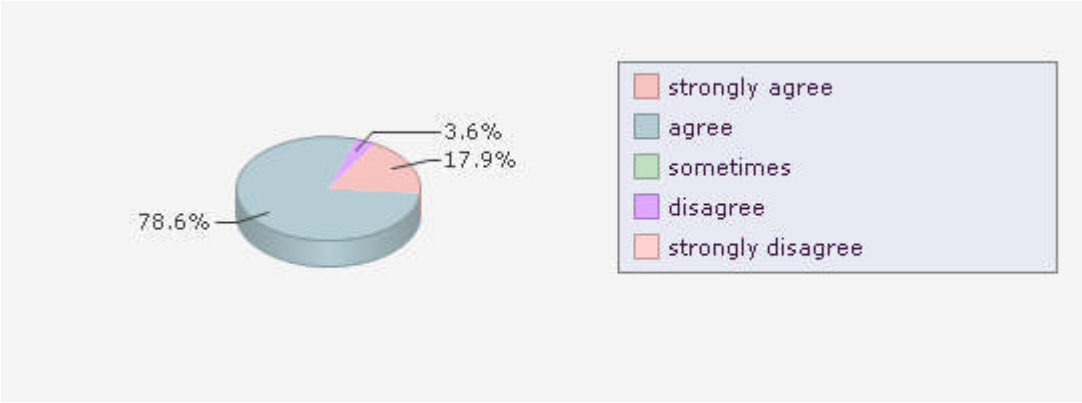
Respondent Group	Staff	
Option	f	%
strongly agree	5	17.9
agree	22	78.6
sometimes	0	0.0
disagree	1	3.6
strongly disagree	0	0.0
Total	28	
Mean	1.9	
Standard Deviation	0.6	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



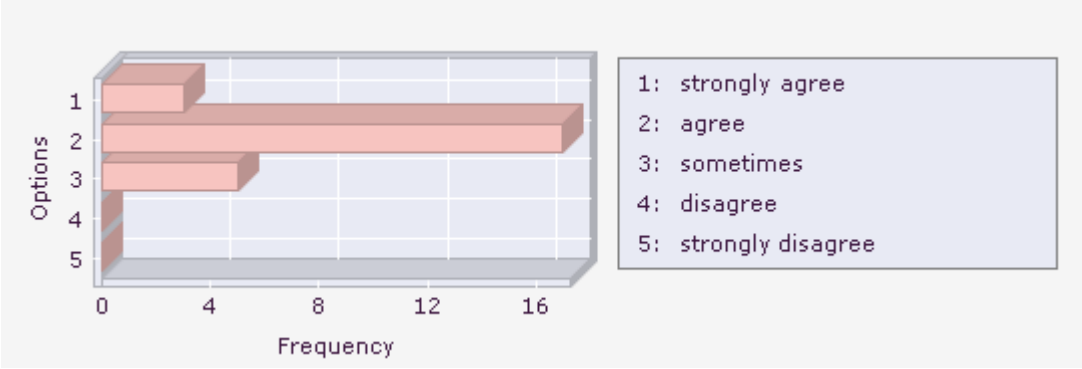
Knowledge and understanding of science and technology as it relates to general radiography and Computed Tomography

Q5. Graduates exhibit knowledge and understanding of the fundamental principles underpinning multi-slice computed tomography

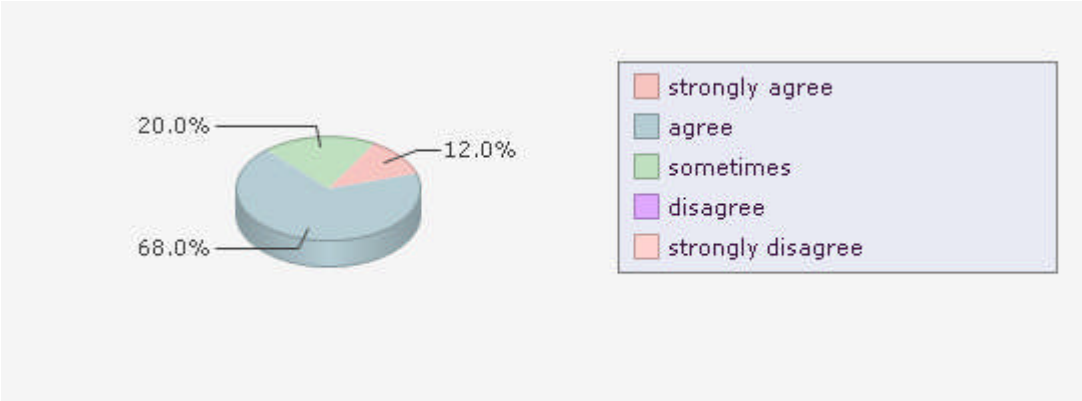
Respondent Group	Staff	
Option	f	%
strongly agree	3	12.0
agree	17	68.0
sometimes	5	20.0
disagree	0	0.0
strongly disagree	0	0.0
Total	25	
Mean	2.1	
Standard Deviation	0.6	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



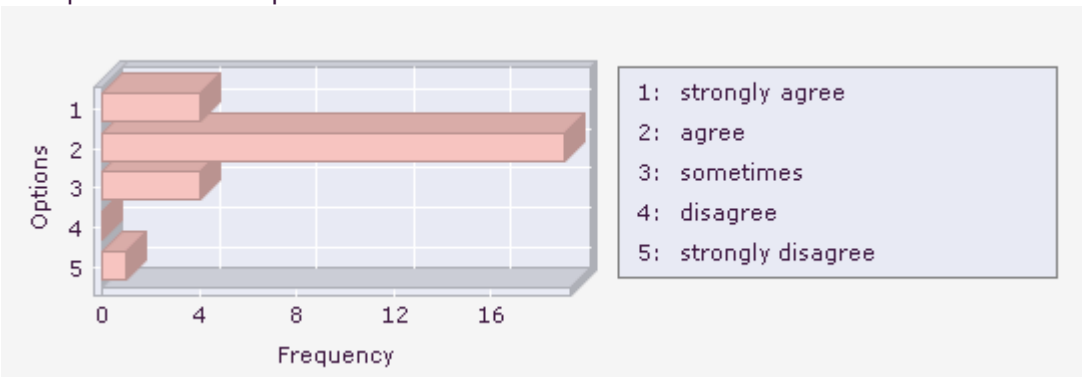
Knowledge and understanding of science and technology as it relates to general radiography and Computed Tomography

Q6. Graduates understand the principles underpinning radiographic exposure systems

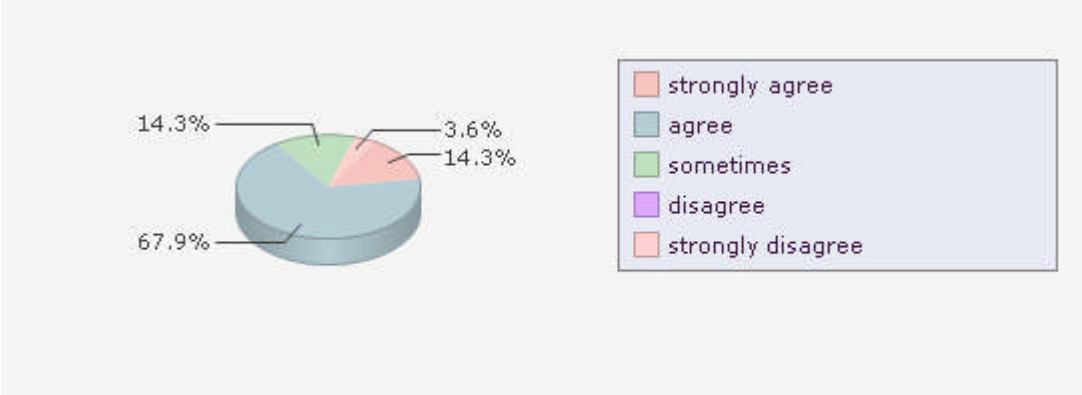
Respondent Group	Staff	
Option	f	%
strongly agree	4	14.3
agree	19	67.9
sometimes	4	14.3
disagree	0	0.0
strongly disagree	1	3.6
Total	28	
Mean	2.1	
Standard Deviation	0.8	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



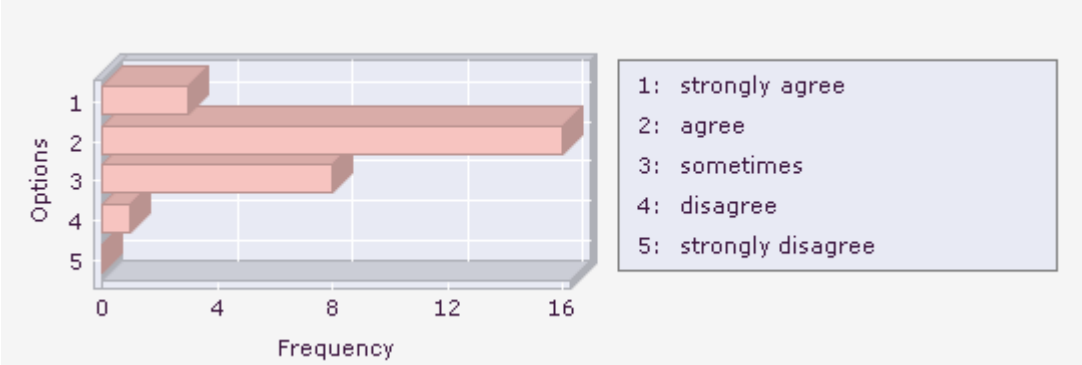
Knowledge and understanding of science and technology as it relates to general radiography and Computed Tomography

Q7. Graduates understand the principles underpinning film screen technology

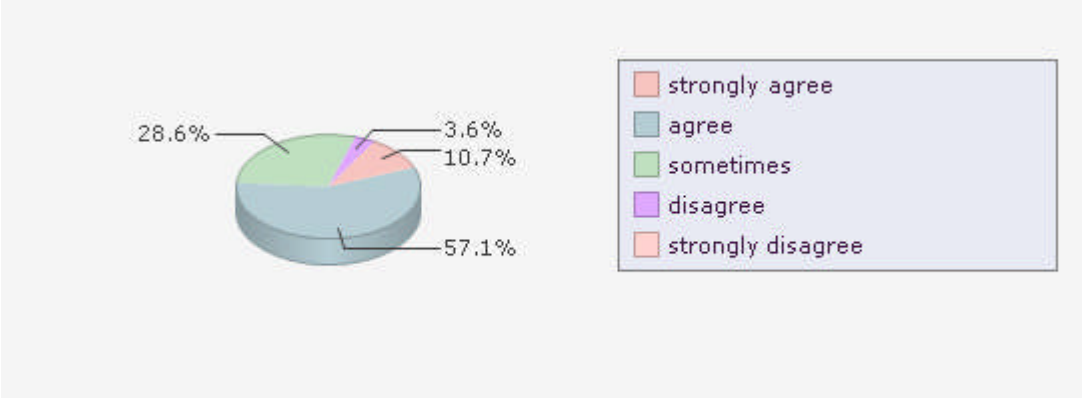
Respondent Group	Staff	
Option	f	%
strongly agree	3	10.7
agree	16	57.1
sometimes	8	28.6
disagree	1	3.6
strongly disagree	0	0.0
Total	28	
Mean	2.3	
Standard Deviation	0.7	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



Knowledge and understanding of science and technology as it relates to general radiography and Computed Tomography

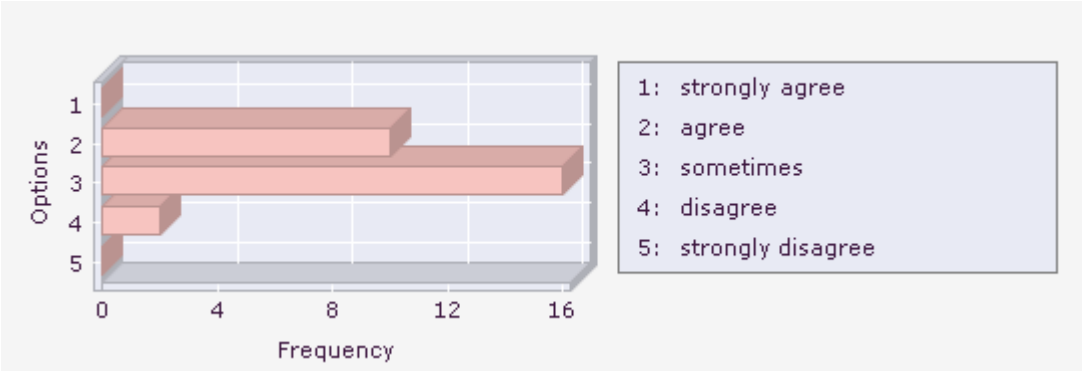
Q8. Graduates can apply quality assurance principles to conventional film processors

Respondent Group	Staff	
Option	f	%
strongly agree	0	0.0
agree	10	35.7
sometimes	16	57.1
disagree	2	7.1
strongly disagree	0	0.0

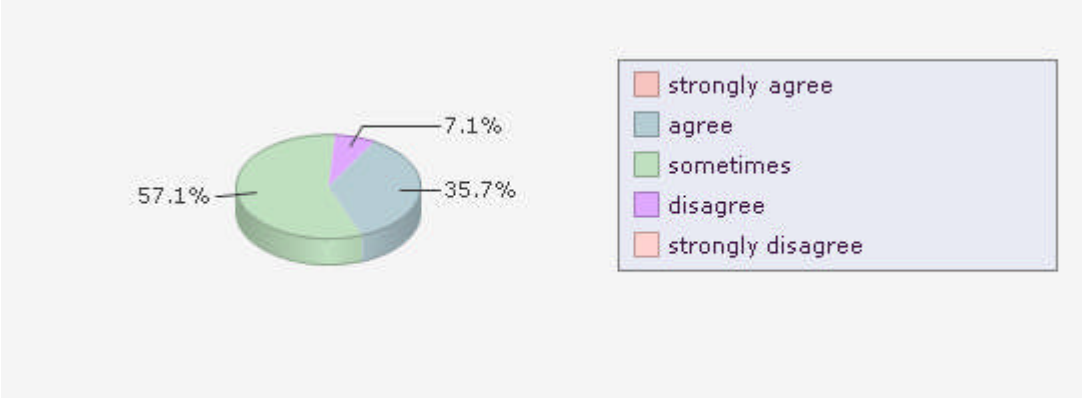
Total	28
Mean	2.7
Standard Deviation	0.6

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



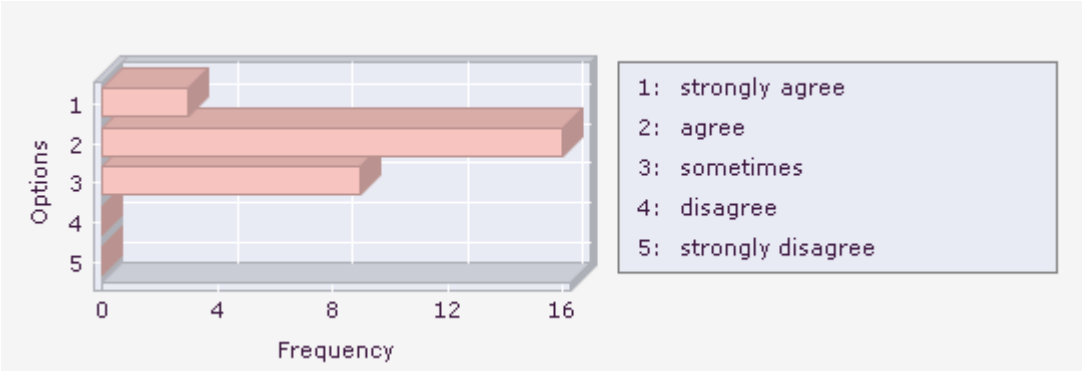
Knowledge and understanding of science and technology as it relates to general radiography and Computed Tomography

Q9. Graduates understand the need to engage in regular equipment maintenance

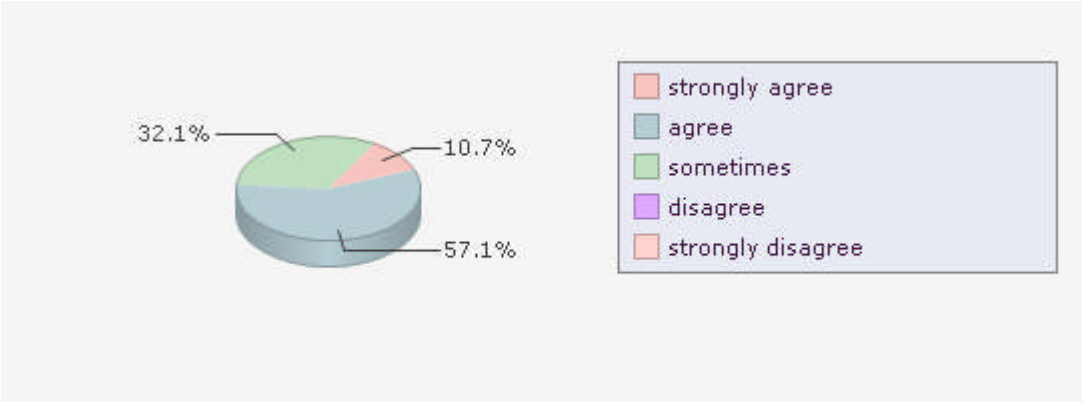
Respondent Group	Staff	
Option	f	%
strongly agree	3	10.7
agree	16	57.1
sometimes	9	32.1
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	2.2	
Standard Deviation	0.6	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



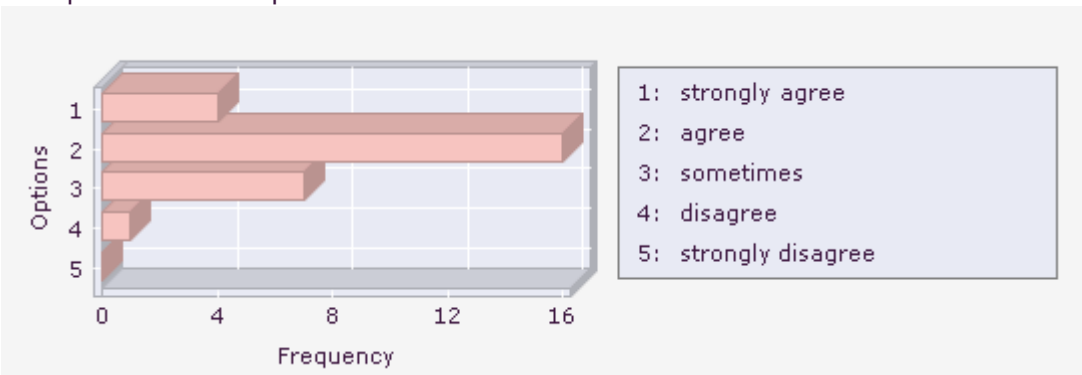
Knowledge and understanding of science and technology as it relates to general radiography and Computed Tomography

Q10. Graduates can apply relevant aspects of psychology including professional communication theories, medical ethics and law to practical radiographic situations

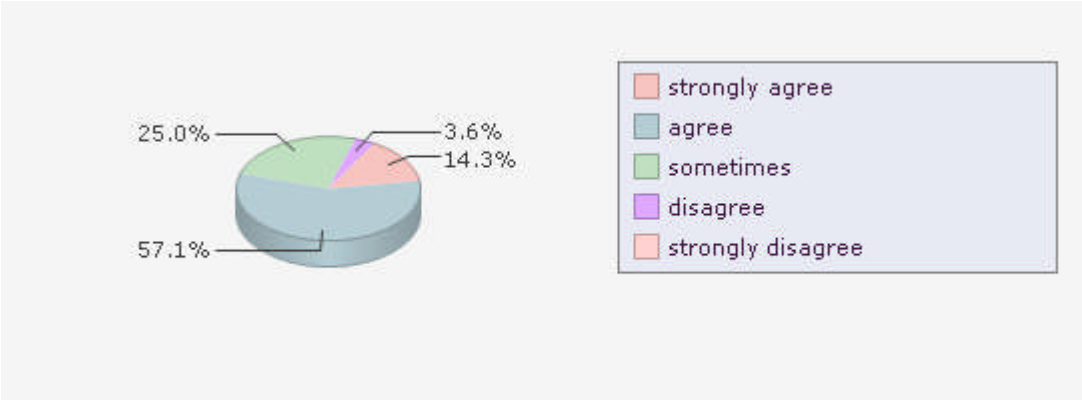
Respondent Group	Staff	
Option	f	%
strongly agree	4	14.3
agree	16	57.1
sometimes	7	25.0
disagree	1	3.6
strongly disagree	0	0.0
Total	28	
Mean	2.2	
Standard Deviation	0.7	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



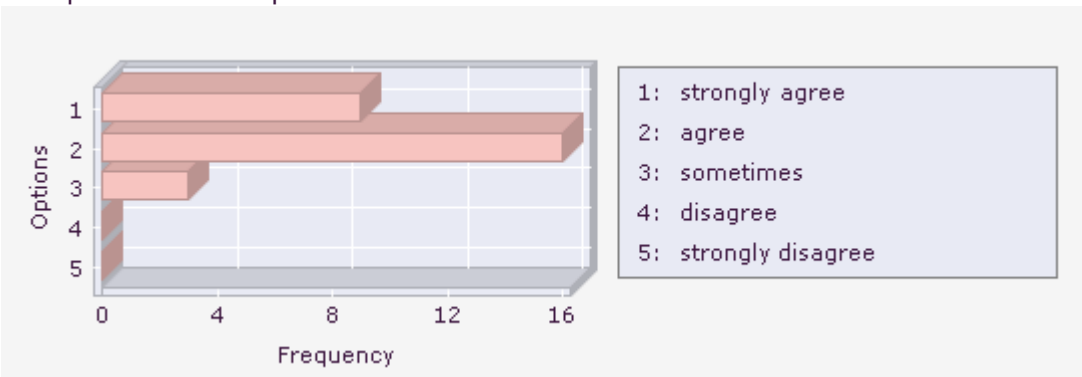
Knowledge and understanding of science and technology as it relates to general radiography and Computed Tomography

Q11. Graduates have a sound knowledge about radiation protection and are able to apply the underlying principles to their practice

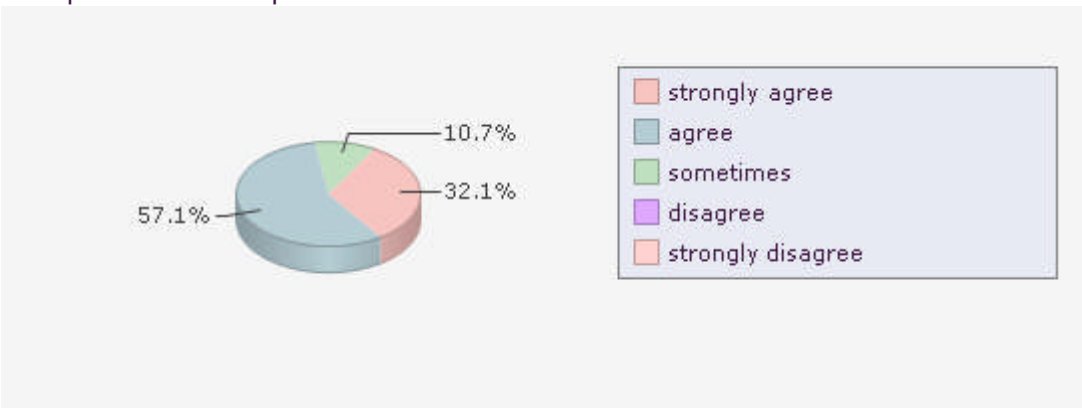
Respondent Group	Staff	
Option	f	%
strongly agree	9	32.1
agree	16	57.1
sometimes	3	10.7
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	1.8	
Standard Deviation	0.6	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



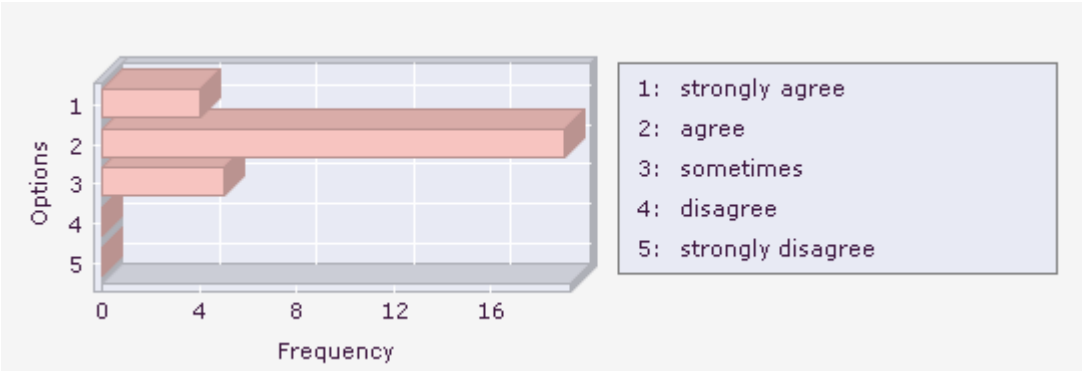
Knowledge and understanding of science and technology as it relates to general radiography and Computed Tomography

Q12. Graduates understand the basic principles of radiation biology and dosimetry

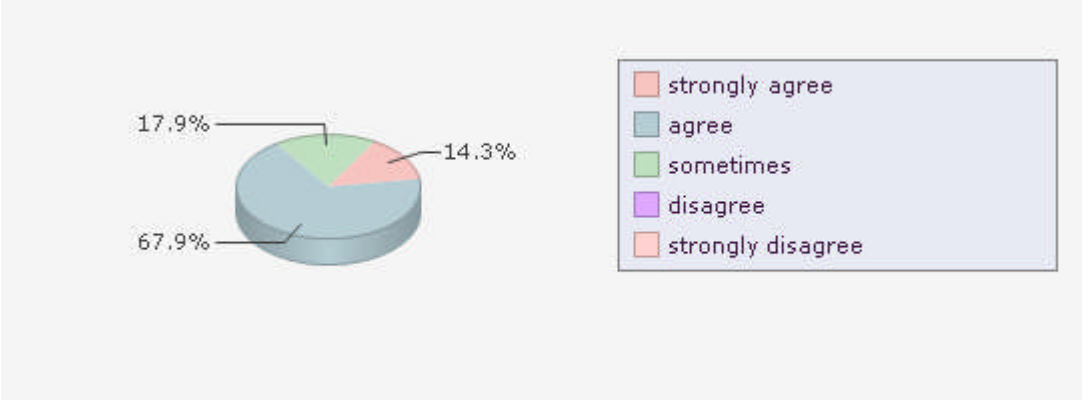
Respondent Group	Staff	
Option	f	%
strongly agree	4	14.3
agree	19	67.9
sometimes	5	17.9
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	2.0	
Standard Deviation	0.6	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



Knowledge and understanding of science and technology as it relates to general radiography and Computed Tomography

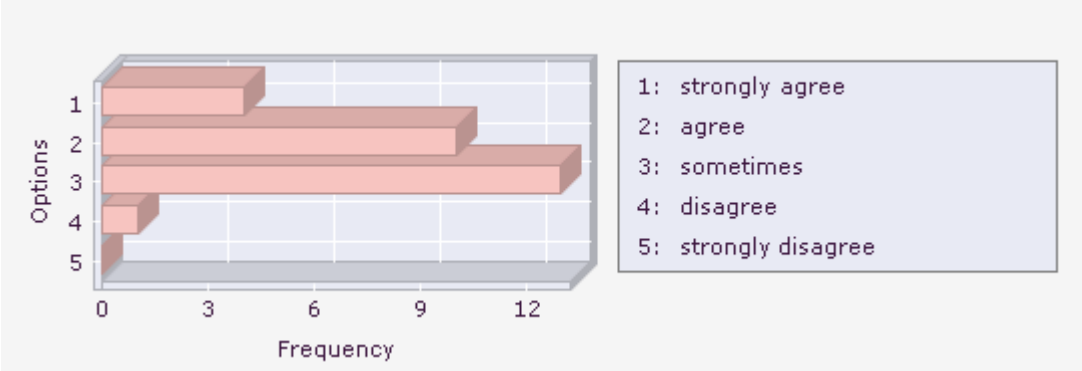
Q13. Graduates are able to provide an informed opinion to patients regarding radiation biology and x-ray dosimetry as it relates to general radiography

Respondent Group	Staff	
Option	f	%
strongly agree	4	14.3
agree	10	35.7
sometimes	13	46.4

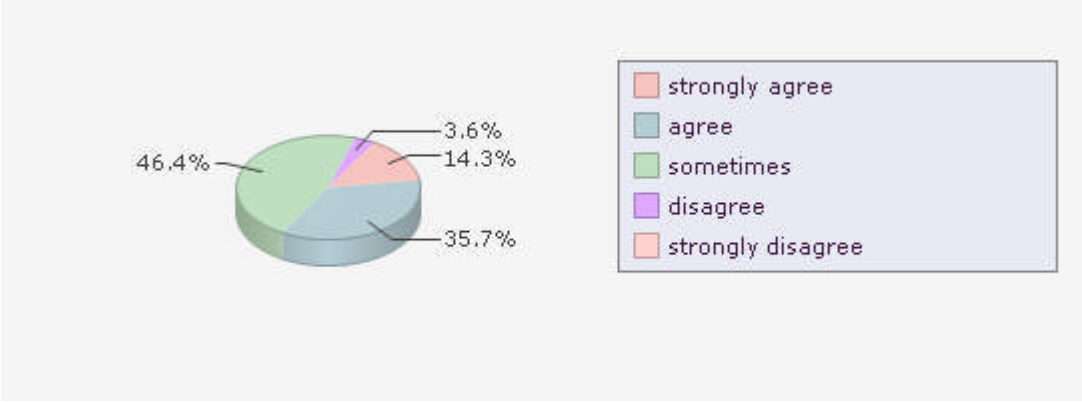
disagree	1	3.6
strongly disagree	0	0.0
Total	28	
Mean	2.4	
Standard Deviation	0.8	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



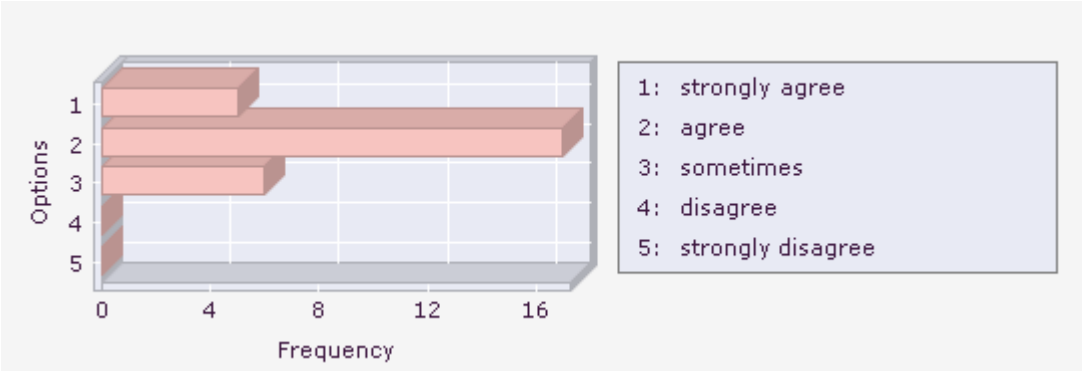
Knowledge and understanding of science and technology as it relates to general radiography and Computed Tomography

Q14. Graduates have a sound knowledge of gross and sectional anatomy

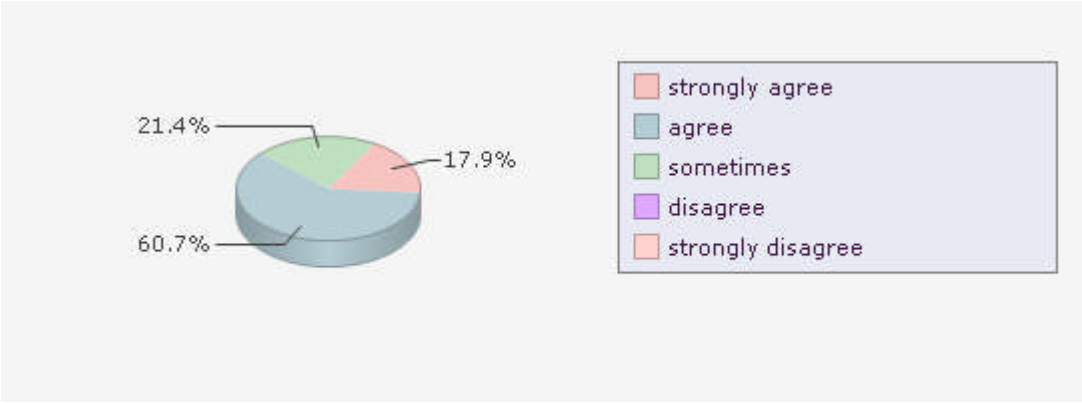
Respondent Group	Staff	
Option	f	%
strongly agree	5	17.9
agree	17	60.7
sometimes	6	21.4
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	2.0	
Standard Deviation	0.6	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



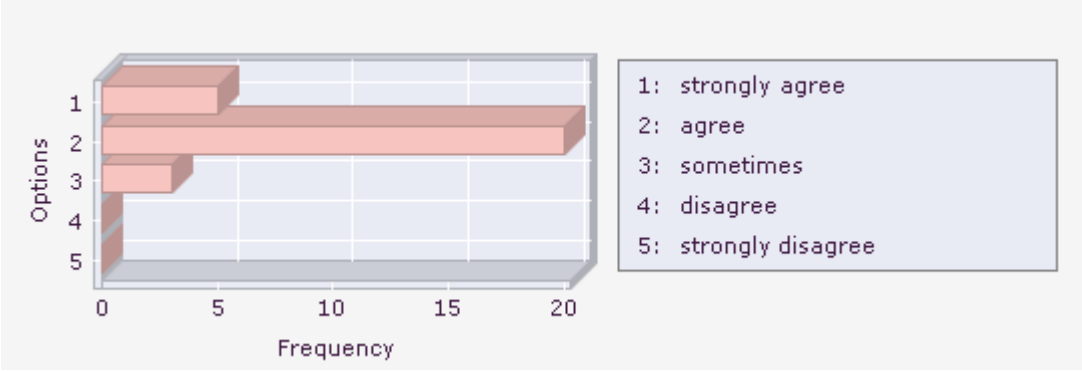
Knowledge and understanding of science and technology as it relates to general radiography and Computed Tomography

Q15. Graduates understand basic physiological processes as they relate to general radiographic examinations including contrast examinations

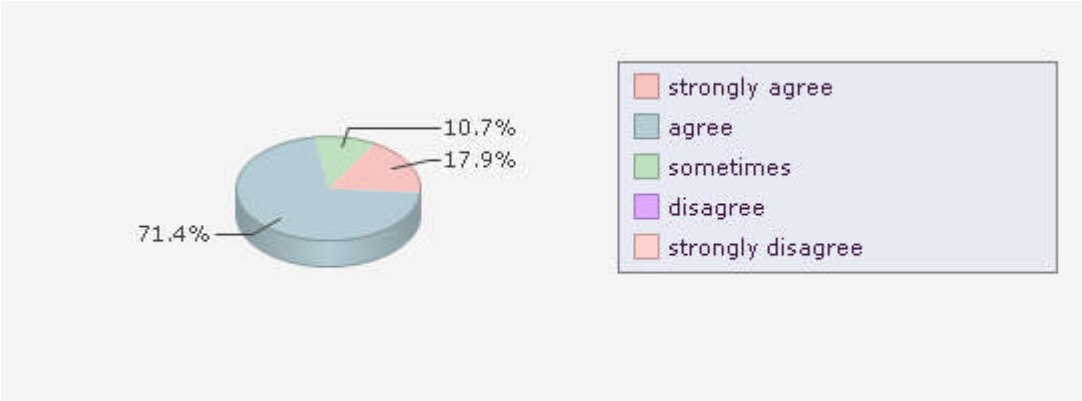
Respondent Group	Staff	
Option	f	%
strongly agree	5	17.9
agree	20	71.4
sometimes	3	10.7
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	1.9	
Standard Deviation	0.5	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



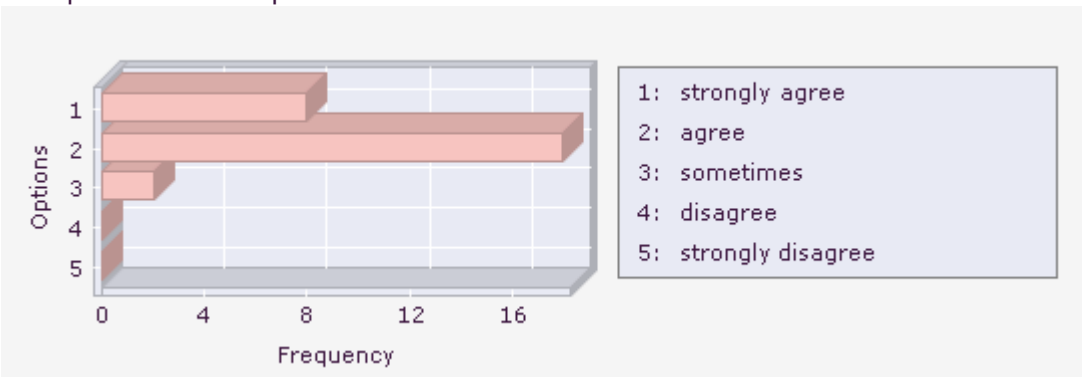
Knowledge and understanding of science and technology as it relates to general radiography and Computed Tomography

Q16. Graduates can recognize a wide range of anatomical structures on general radiographic images

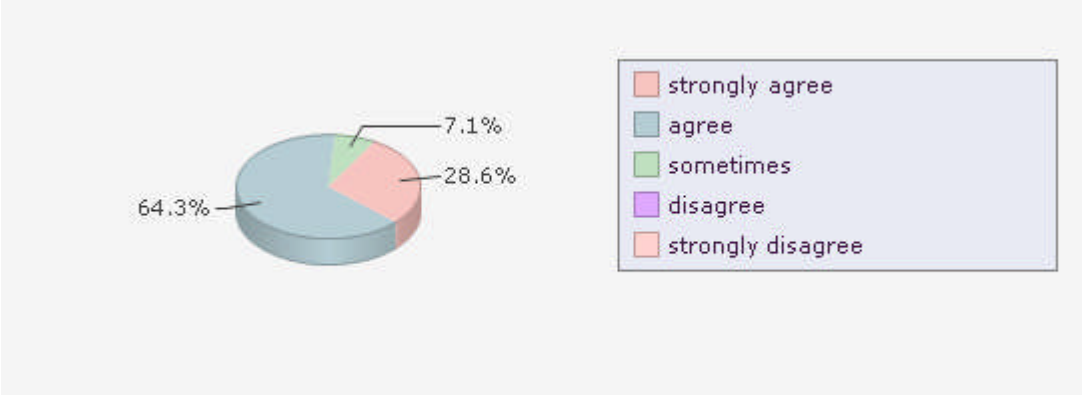
Respondent Group	Staff	
Option	f	%
strongly agree	8	28.6
agree	18	64.3
sometimes	2	7.1
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	1.8	
Standard Deviation	0.6	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



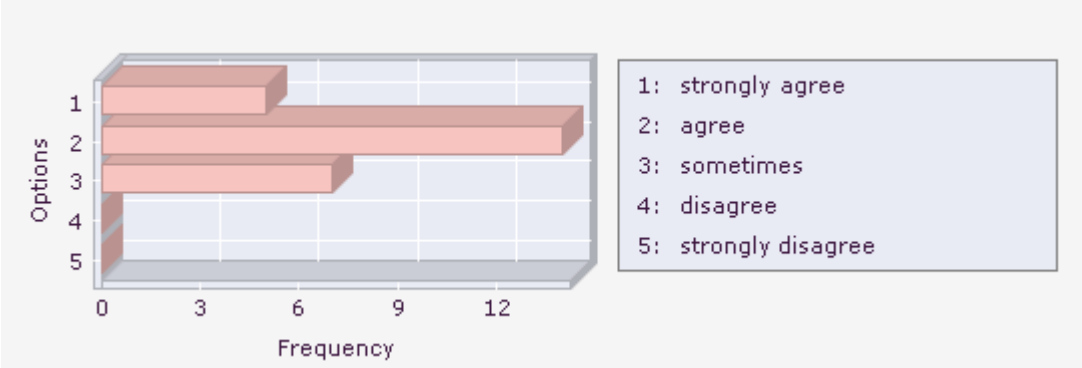
Knowledge and understanding of science and technology as it relates to general radiography and Computed Tomography

Q17. Graduates can recognize a wide range of anatomical structures on sectional CT images

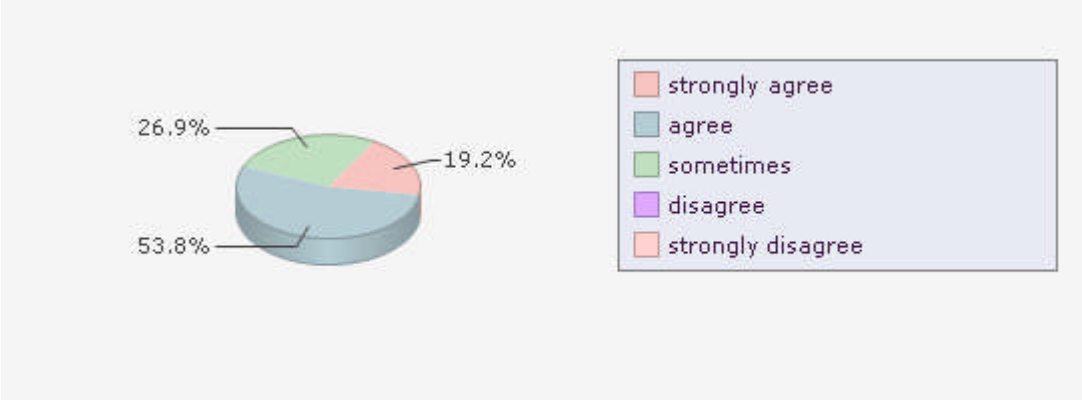
Respondent Group	Staff	
Option	f	%
strongly agree	5	19.2
agree	14	53.8
sometimes	7	26.9
disagree	0	0.0
strongly disagree	0	0.0
Total	26	
Mean	2.1	
Standard Deviation	0.7	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



Knowledge and understanding of science and technology as it relates to general radiography and Computed Tomography

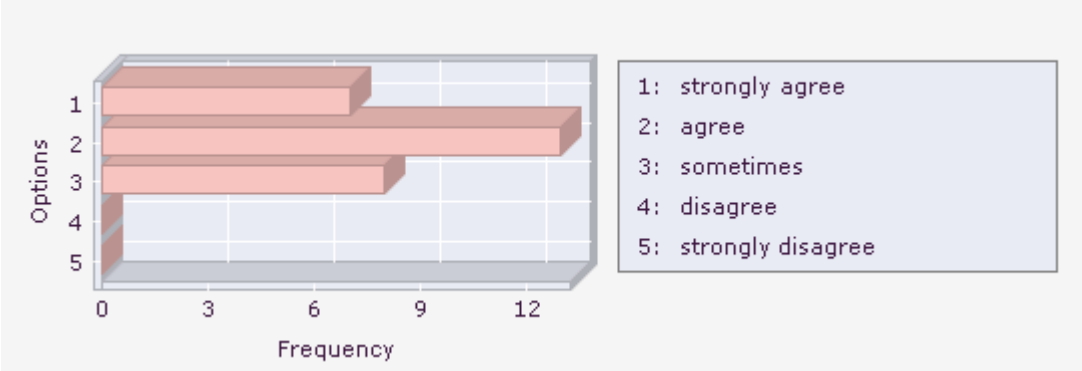
Q18. Graduates have a basic knowledge of pathological principles related to the musculoskeletal system, gastroinstestinal tract, renal system and respiratory, cardiovascular and neurological systems

Respondent Group	Staff	
Option	f	%
strongly agree	7	25.0
agree	13	46.4
sometimes	8	28.6
disagree	0	0.0

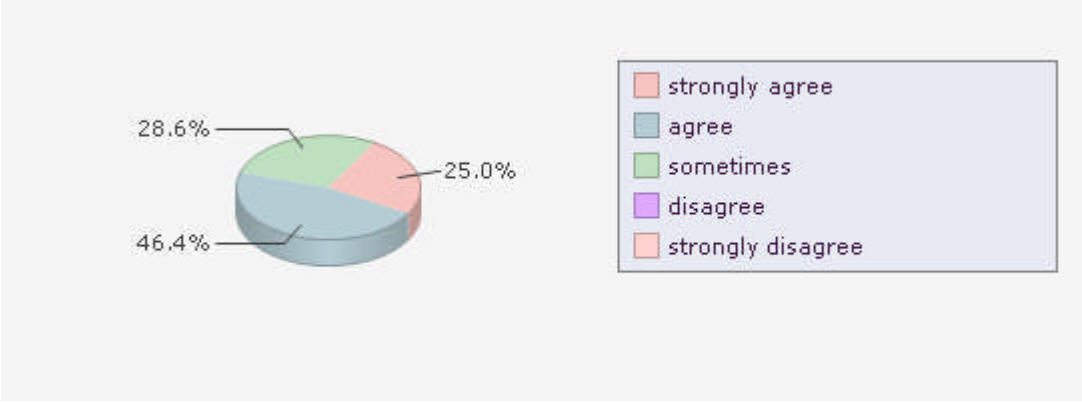
strongly disagree	0	0.0
Total	28	
Mean	2.0	
Standard Deviation	0.7	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



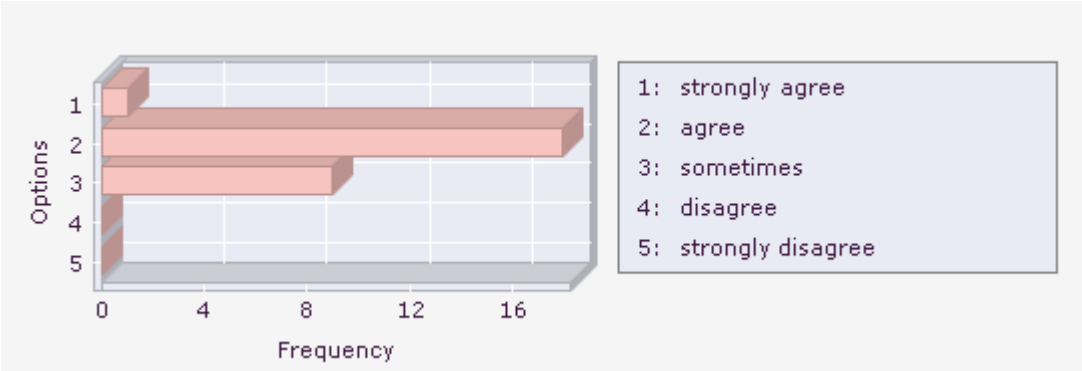
Knowledge and understanding of science and technology as it relates to general radiography and Computed Tomography

Q19. Graduates are able to apply their knowledge of pathology affecting the musculoskeletal system, gastroinstestinal tract, renal system and respiratory system to their general radiographic images and, where appropriate, recognize the need for additional projections

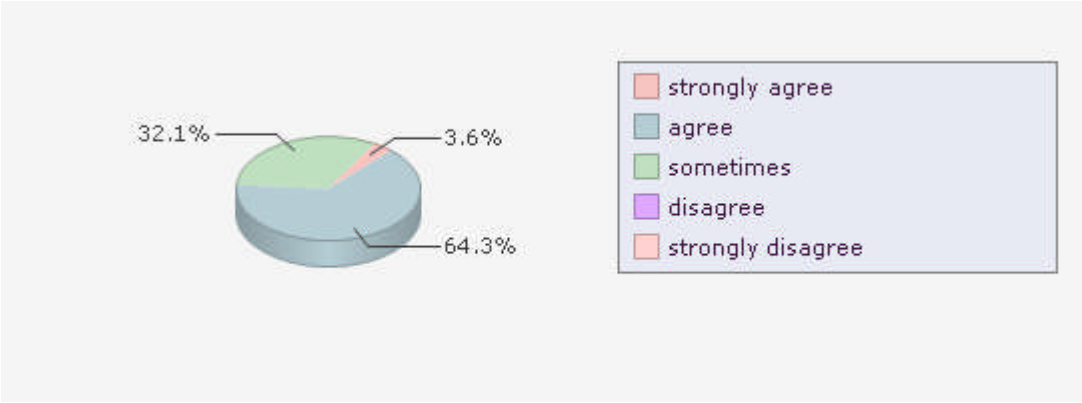
Respondent Group	Staff	
Option	f	%
strongly agree	1	3.6
agree	18	64.3
sometimes	9	32.1
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	2.3	
Standard Deviation	0.5	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



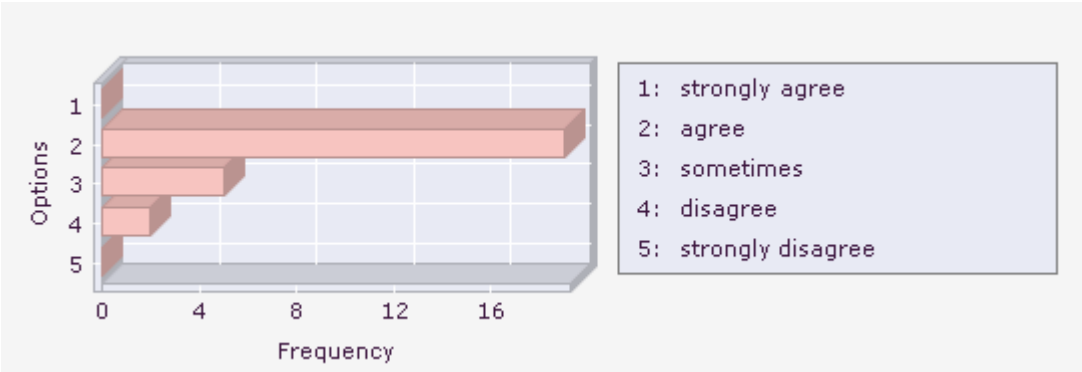
Knowledge and understanding of science and technology as it relates to general radiography and Computed Tomography

Q20. Graduates are able to apply their knowledge of pathology affecting the musculoskeletal system, gastroinstestinal tract, renal system and respiratory, cardiovascular and neurological systems to CT images

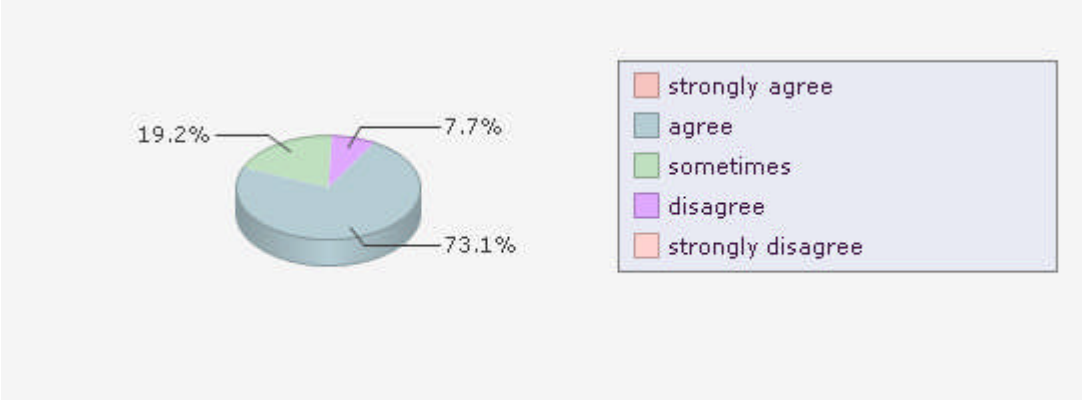
Respondent Group	Staff	
Option	f	%
strongly agree	0	0.0
agree	19	73.1
sometimes	5	19.2
disagree	2	7.7
strongly disagree	0	0.0
Total	26	
Mean	2.3	
Standard Deviation	0.6	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



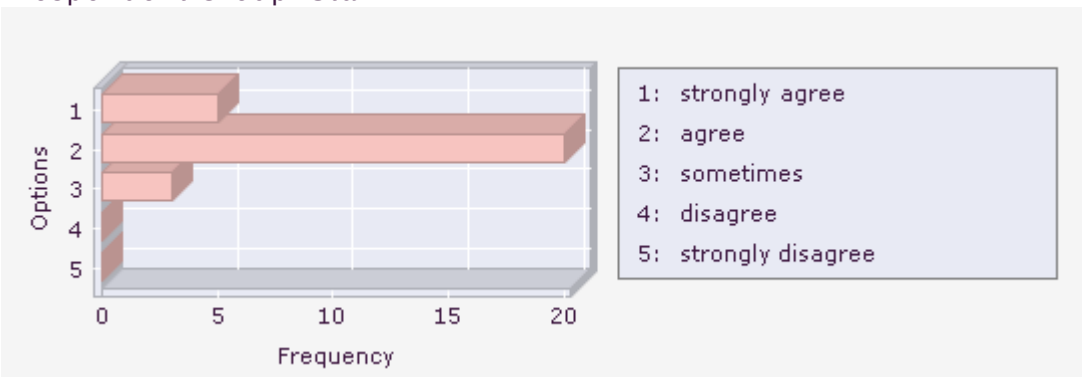
Knowledge and understanding of science and technology as it relates to general radiography and Computed Tomography

Q21. Graduates have a sound knowledge of radiographic projections for general radiographic examinations including contrast examinations for adult patients

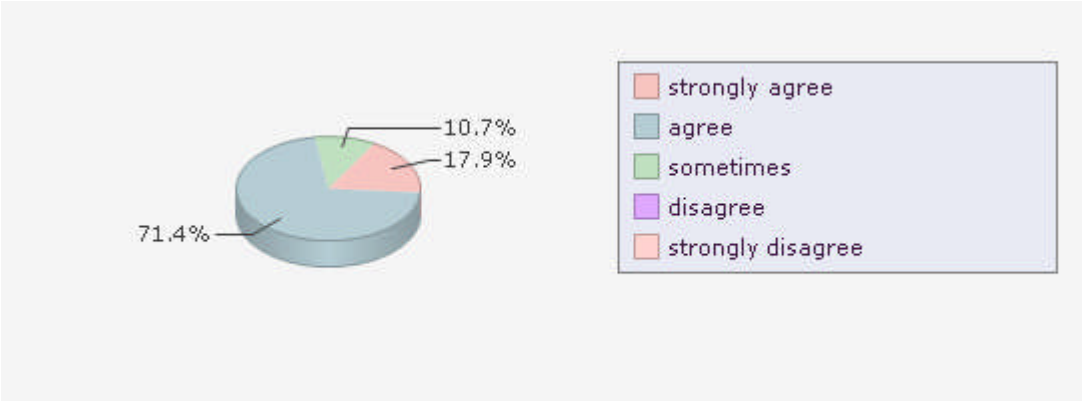
Respondent Group	Staff	
Option	f	%
strongly agree	5	17.9
agree	20	71.4
sometimes	3	10.7
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	1.9	
Standard Deviation	0.5	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



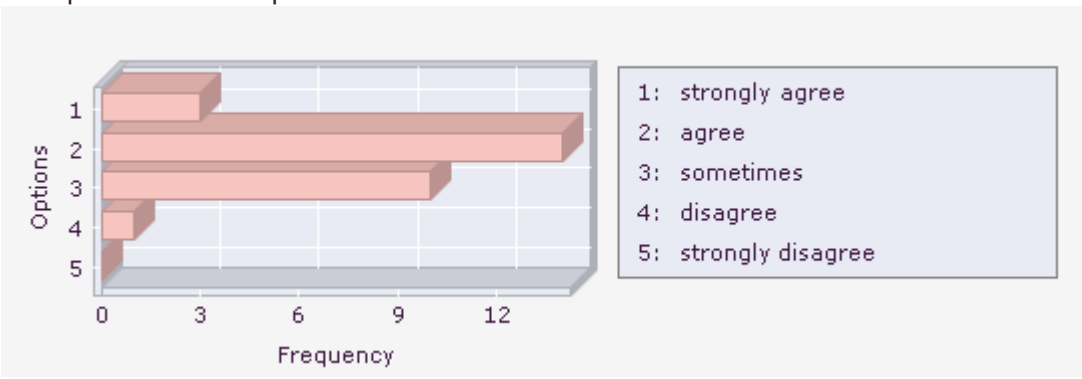
Knowledge and understanding of science and technology as it relates to general radiography and Computed Tomography

Q22. Graduates have a sound knowledge of radiographic projections for general radiographic examinations including contrast examinations for paediatric patients

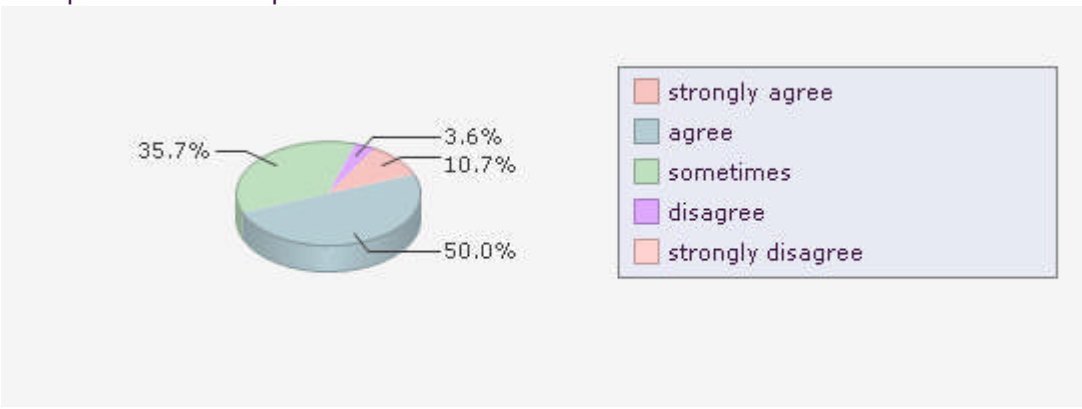
Respondent Group	Staff	
Option	f	%
strongly agree	3	10.7
agree	14	50.0
sometimes	10	35.7
disagree	1	3.6
strongly disagree	0	0.0
Total	28	
Mean	2.3	
Standard Deviation	0.7	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



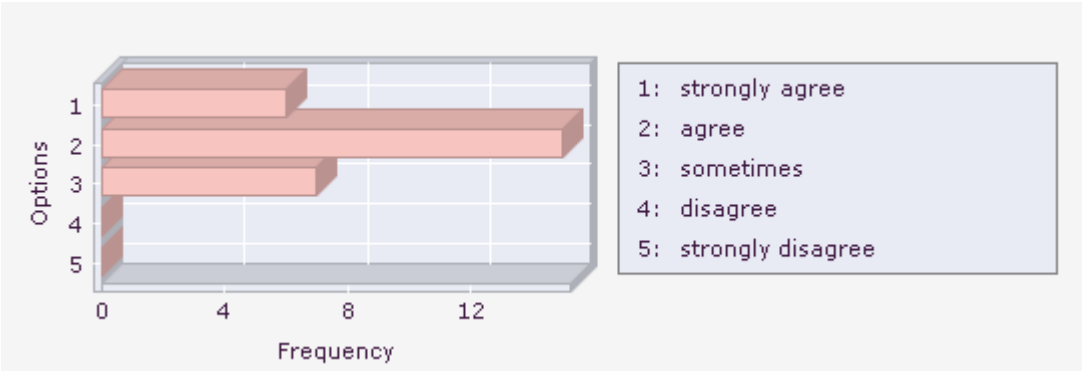
Knowledge and understanding of science and technology as it relates to general radiography and Computed Tomography

Q23. Graduates have a good understanding of the applications of IT in the field of medical imaging

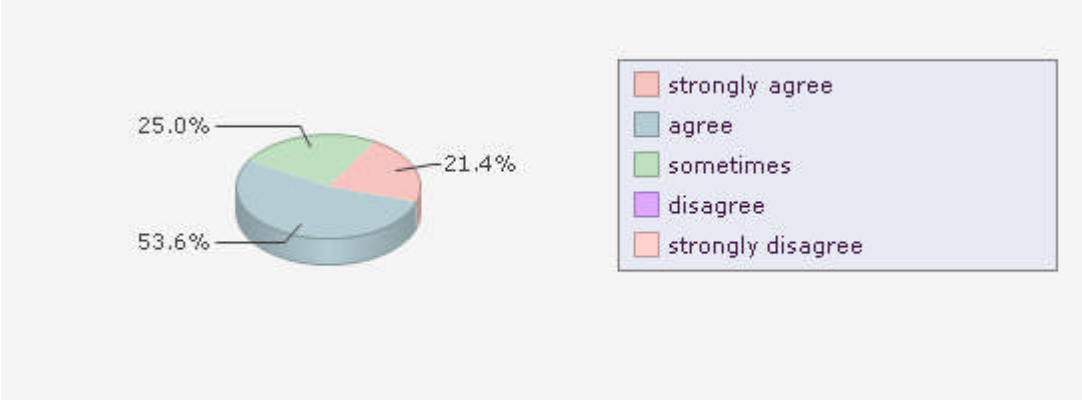
Respondent Group	Staff	
Option	f	%
strongly agree	6	21.4
agree	15	53.6
sometimes	7	25.0
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	2.0	
Standard Deviation	0.7	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



SECTION 2: DSA, MRI and Ultrasound

Knowledge and understanding of science and technology as it relates to DSA, MRI and Ultrasound

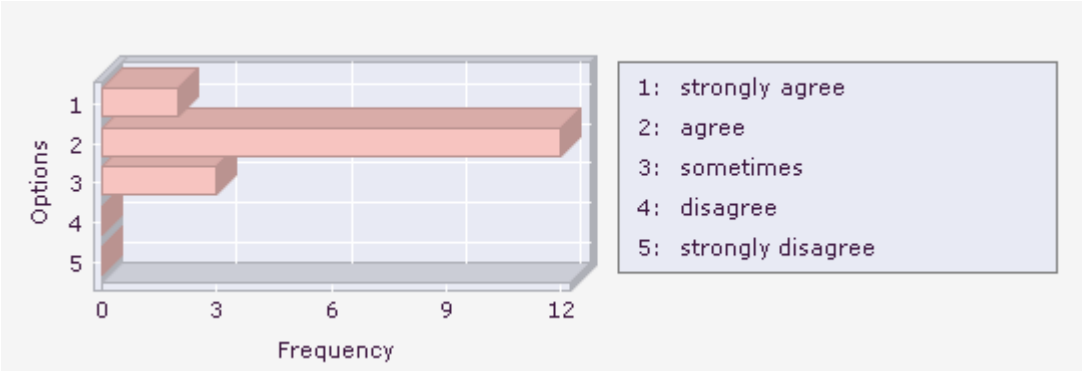
Q24. Graduates exhibit understanding of the fundamental principles underpinning DSA instrumentation

Respondent Group	Staff	
Option	f	%
strongly agree	2	11.8
agree	12	70.6

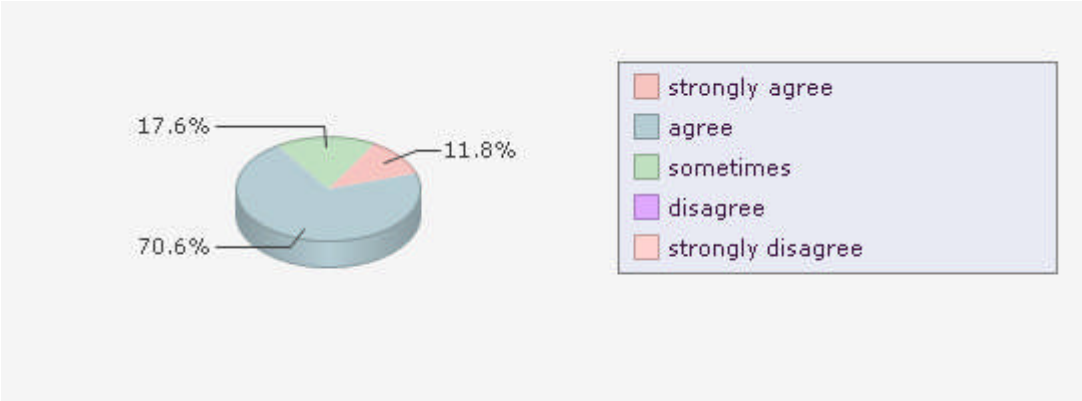
sometimes	3	17.6
disagree	0	0.0
strongly disagree	0	0.0
Total	17	
Mean	2.1	
Standard Deviation	0.6	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



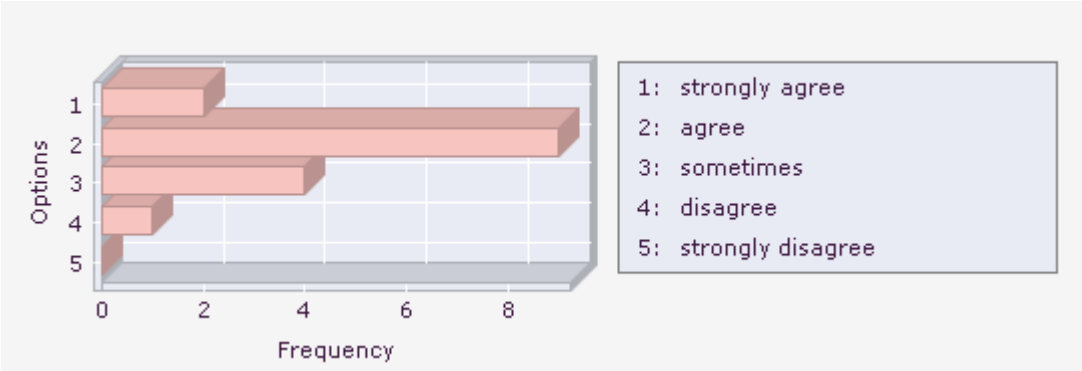
Knowledge and understanding of science and technology as it relates to DSA, MRI and Ultrasound

Q25. Graduates exhibit understanding of the fundamental principles underpinning MRI physics and instrumentation

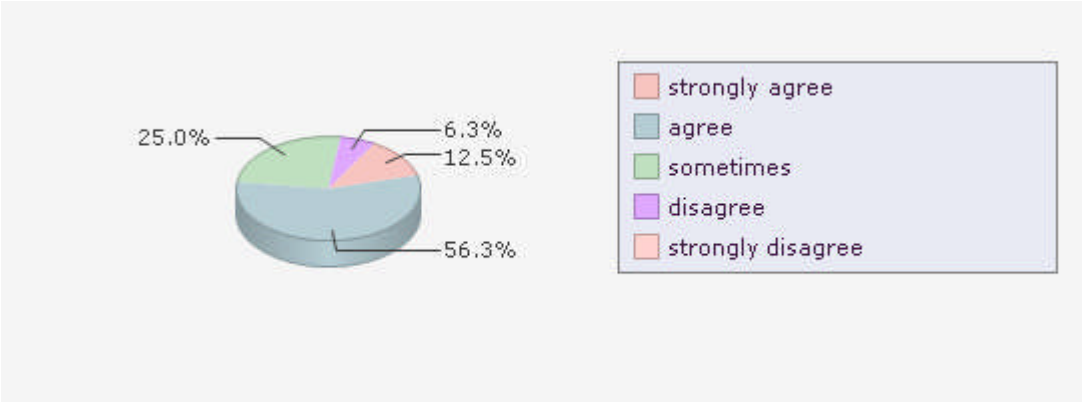
Respondent Group	Staff	
Option	f	%
strongly agree	2	12.5
agree	9	56.3
sometimes	4	25.0
disagree	1	6.3
strongly disagree	0	0.0
Total	16	
Mean	2.3	
Standard Deviation	0.8	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



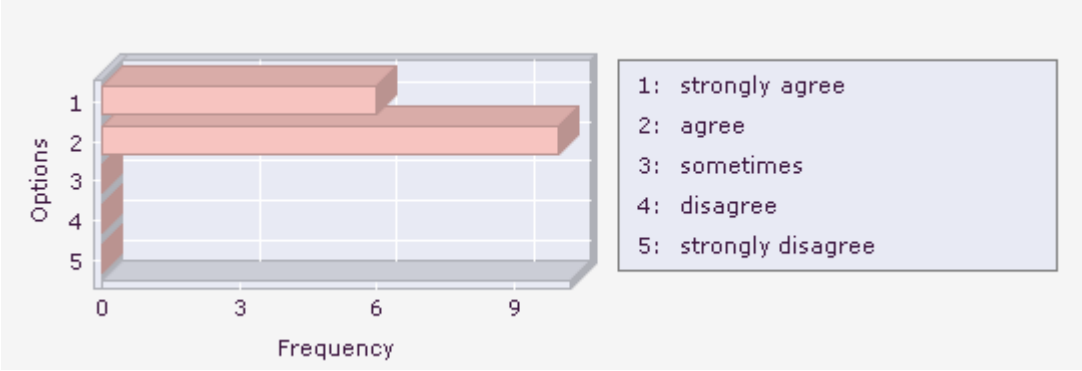
Knowledge and understanding of science and technology as it relates to DSA, MRI and Ultrasound

Q26. Graduates exhibit understanding of the safety issues surrounding MRI

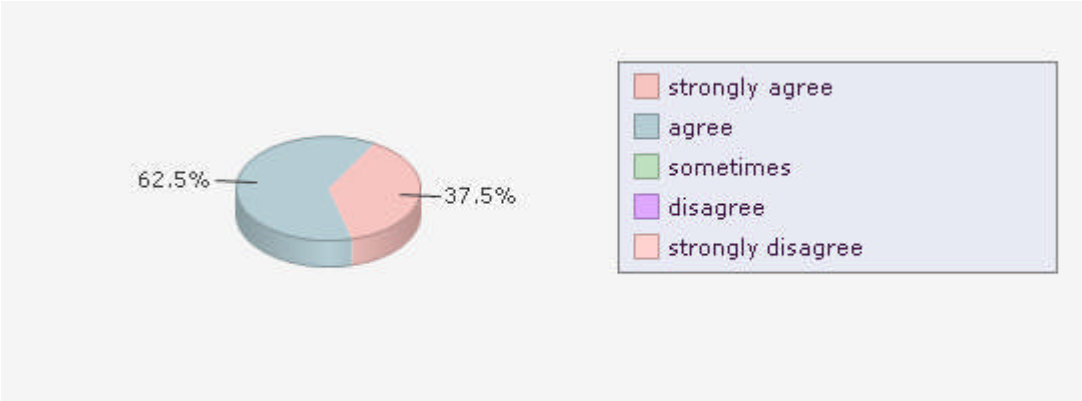
Respondent Group	Staff	
Option	f	%
strongly agree	6	37.5
agree	10	62.5
sometimes	0	0.0
disagree	0	0.0
strongly disagree	0	0.0
Total	16	
Mean	1.6	
Standard Deviation	0.5	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



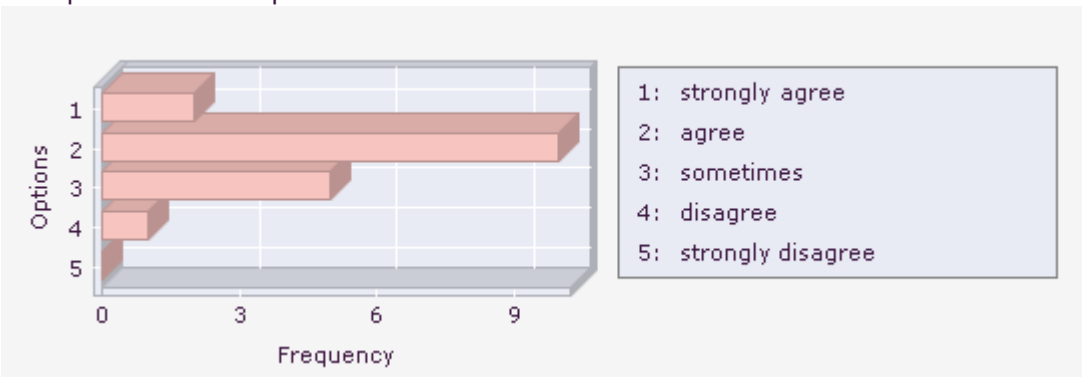
Knowledge and understanding of science and technology as it relates to DSA, MRI and Ultrasound

Q27. Graduates exhibit understanding of the fundamental principles underpinning ultrasound physics and instrumentation

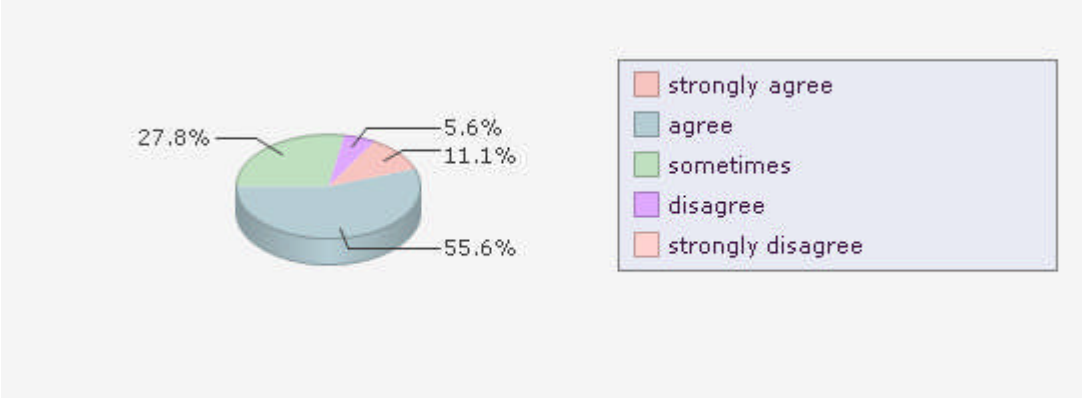
Respondent Group	Staff	
Option	f	%
strongly agree	2	11.1
agree	10	55.6
sometimes	5	27.8
disagree	1	5.6
strongly disagree	0	0.0
Total	18	
Mean	2.3	
Standard Deviation	0.8	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



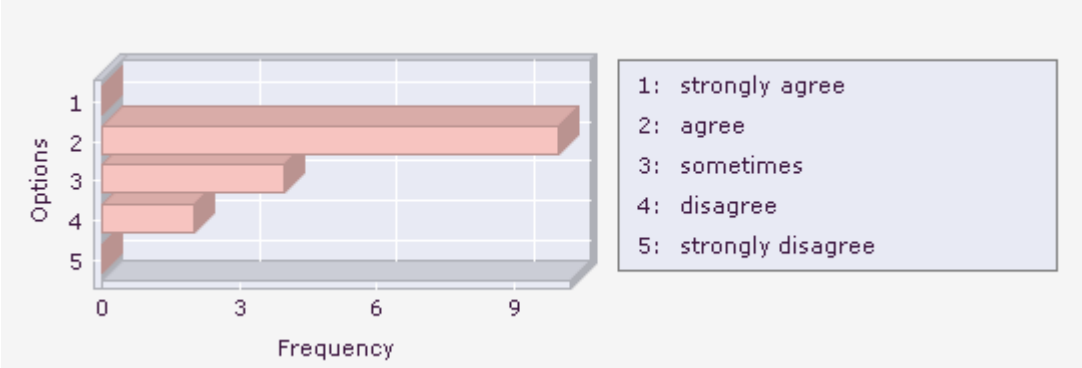
Knowledge and understanding of science and technology as it relates to DSA, MRI and Ultrasound

Q28. Graduates have a sound knowledge of relevant imaging protocols for a range of DSA examinations

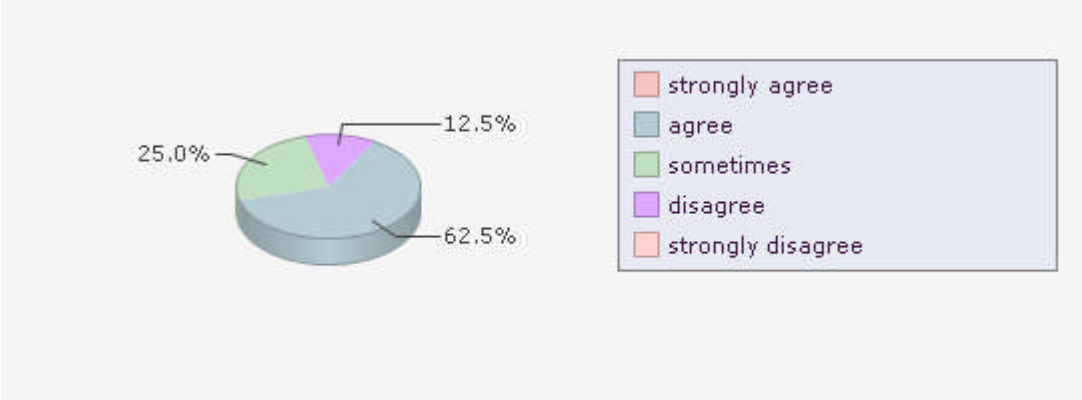
Respondent Group	Staff	
Option	f	%
strongly agree	0	0.0
agree	10	62.5
sometimes	4	25.0
disagree	2	12.5
strongly disagree	0	0.0
Total	16	
Mean	2.5	
Standard Deviation	0.7	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



Knowledge and understanding of science and technology as it relates to DSA, MRI and Ultrasound

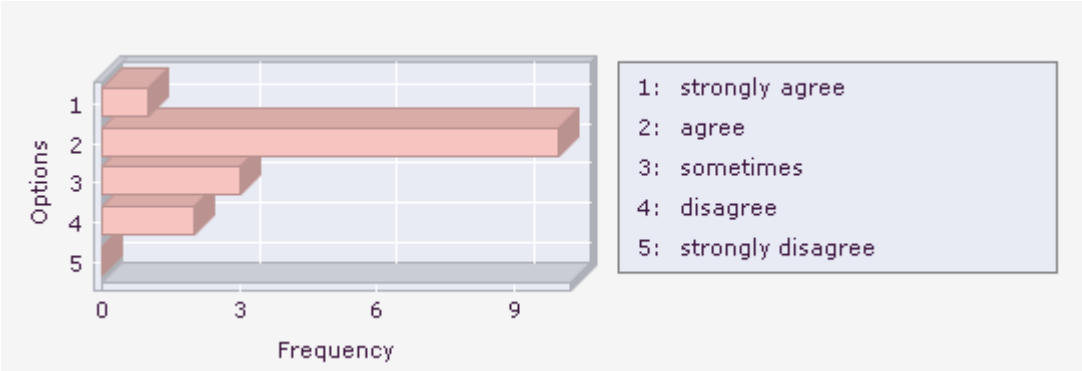
Q29. Graduates have a sound knowledge of relevant imaging protocols for MRI examinations of the brain

Respondent Group	Staff	
Option	f	%
strongly agree	1	6.3
agree	10	62.5
sometimes	3	18.8
disagree	2	12.5
strongly disagree	0	0.0

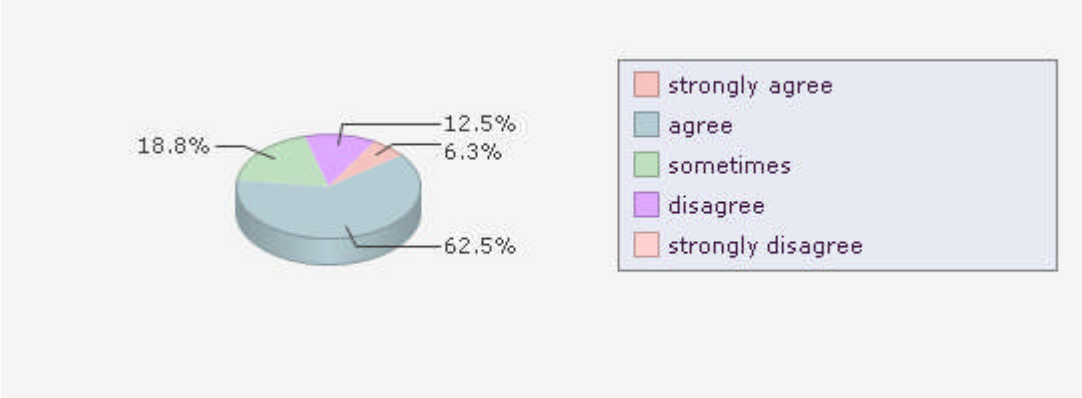
Total	16
Mean	2.4
Standard Deviation	0.8

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



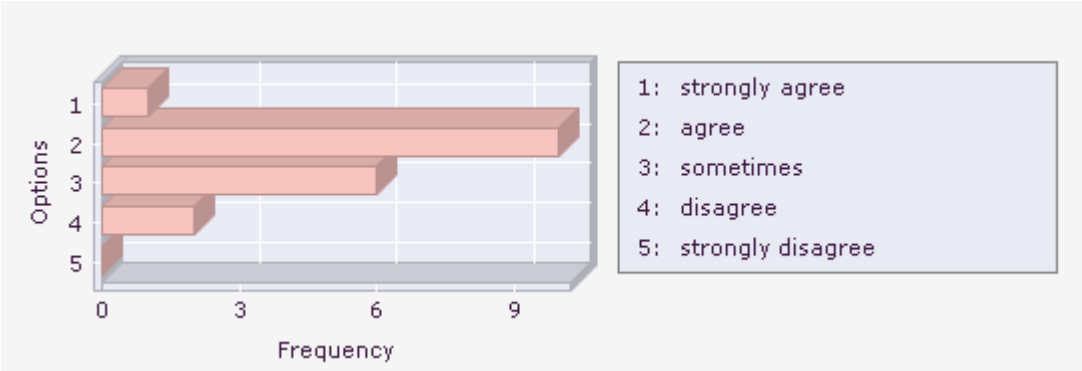
Knowledge and understanding of science and technology as it relates to DSA, MRI and Ultrasound

Q30. Graduates have a sound knowledge of sonographic imaging protocols for abdominal examinations

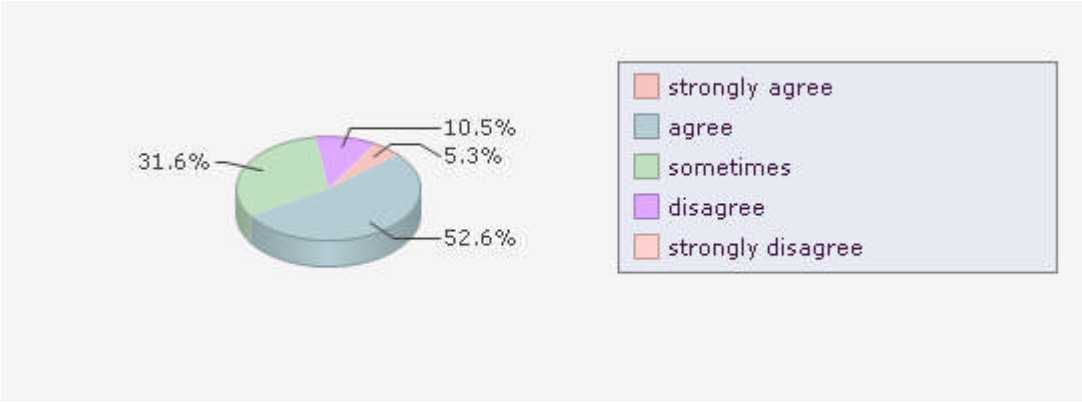
Respondent Group	Staff	
Option	f	%
strongly agree	1	5.3
agree	10	52.6
sometimes	6	31.6
disagree	2	10.5
strongly disagree	0	0.0
Total	19	
Mean	2.5	
Standard Deviation	0.8	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



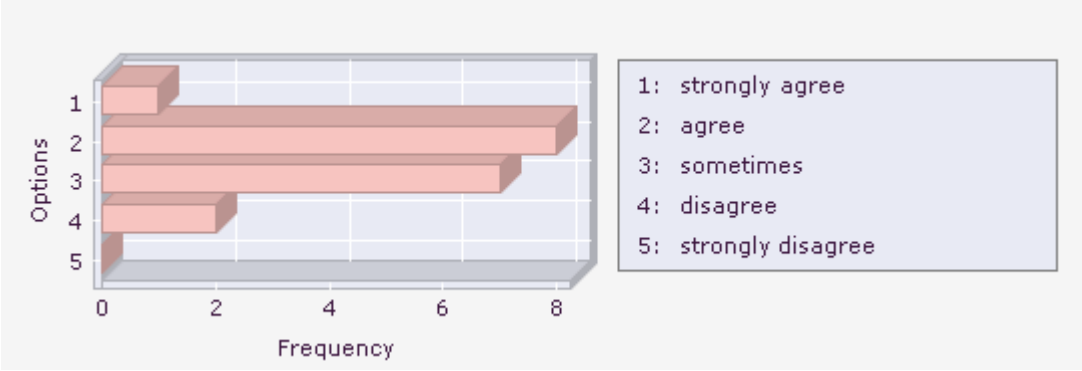
Knowledge and understanding of science and technology as it relates to DSA, MRI and Ultrasound

Q31. Graduates display a basic understanding of sonographic examinations involving the breast and thyroid

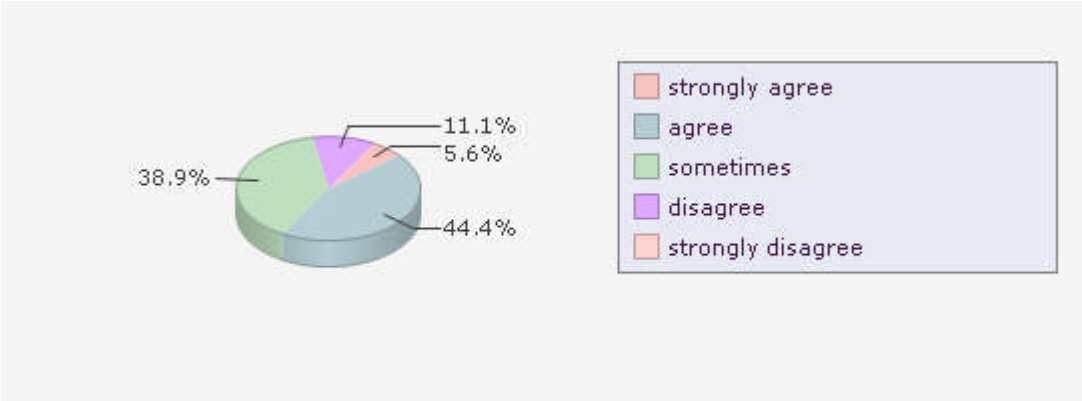
Respondent Group	Staff	
Option	f	%
strongly agree	1	5.6
agree	8	44.4
sometimes	7	38.9
disagree	2	11.1
strongly disagree	0	0.0
Total	18	
Mean	2.6	
Standard Deviation	0.8	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



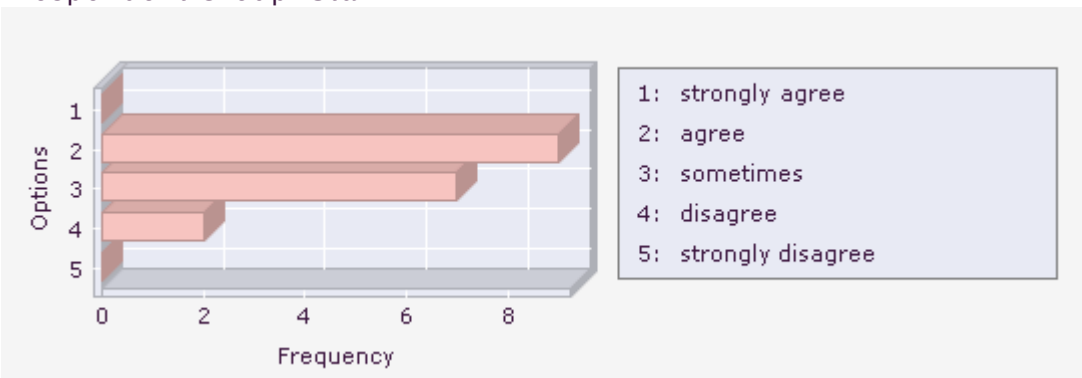
Knowledge and understanding of science and technology as it relates to DSA, MRI and Ultrasound

Q32. Graduates display a basic understanding of vascular ultrasound

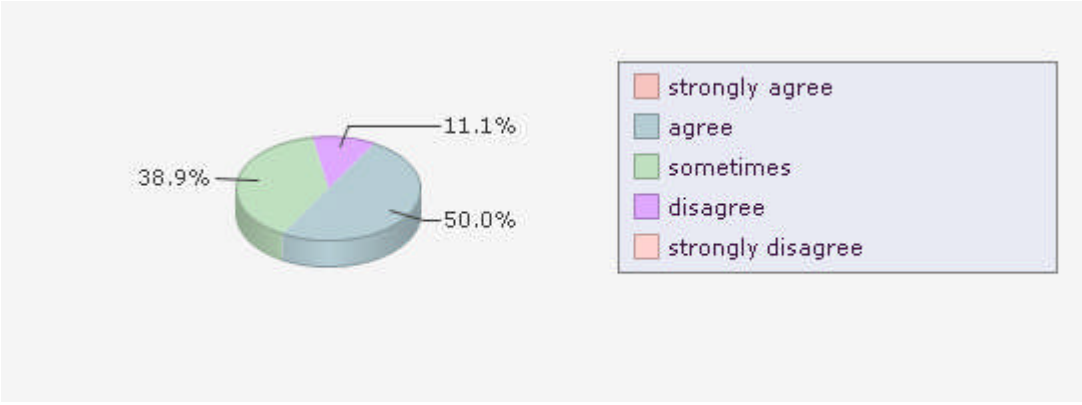
Respondent Group	Staff	
Option	f	%
strongly agree	0	0.0
agree	9	50.0
sometimes	7	38.9
disagree	2	11.1
strongly disagree	0	0.0
Total	18	
Mean	2.6	
Standard Deviation	0.7	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



Knowledge and understanding of science and technology as it relates

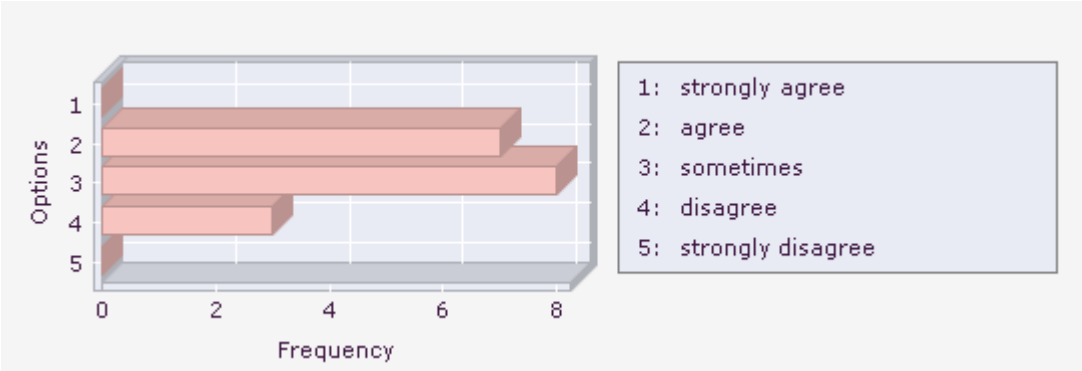
to DSA, MRI and Ultrasound

Q33. Graduates display a basic understanding about obstetric and gynaecological ultrasound

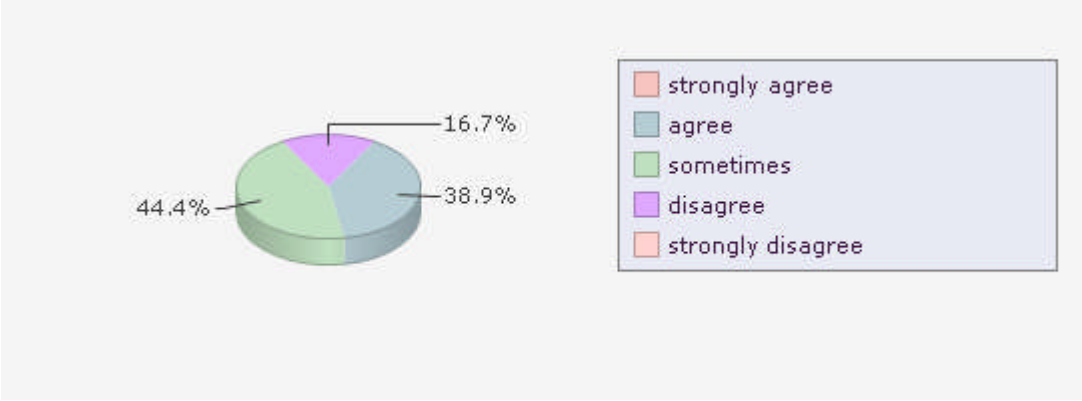
Respondent Group	Staff	
Option	f	%
strongly agree	0	0.0
agree	7	38.9
sometimes	8	44.4
disagree	3	16.7
strongly disagree	0	0.0
Total	18	
Mean	2.8	
Standard Deviation	0.7	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



Knowledge and understanding of science and technology as it relates to DSA, MRI and Ultrasound

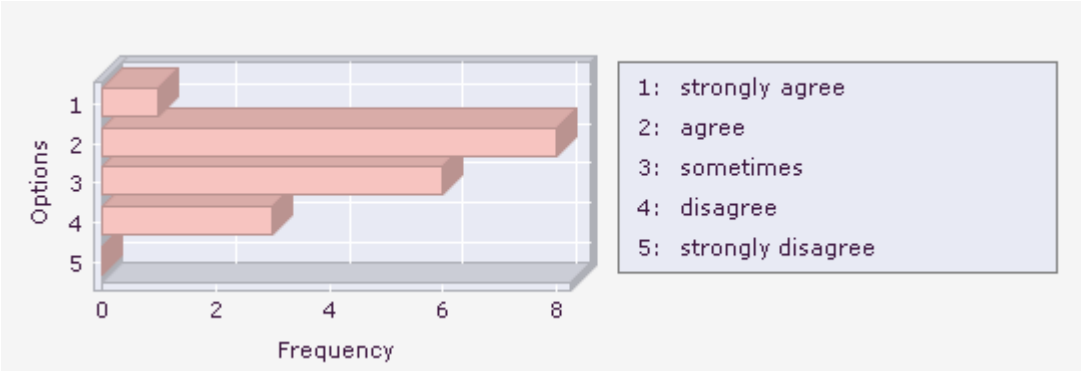
Q34. Graduates can recognize a wide range of anatomical structures on sonographic abdominal images

Respondent Group	Staff	
Option	f	%
strongly agree	1	5.6
agree	8	44.4
sometimes	6	33.3
disagree	3	16.7
strongly disagree	0	0.0
Total	18	

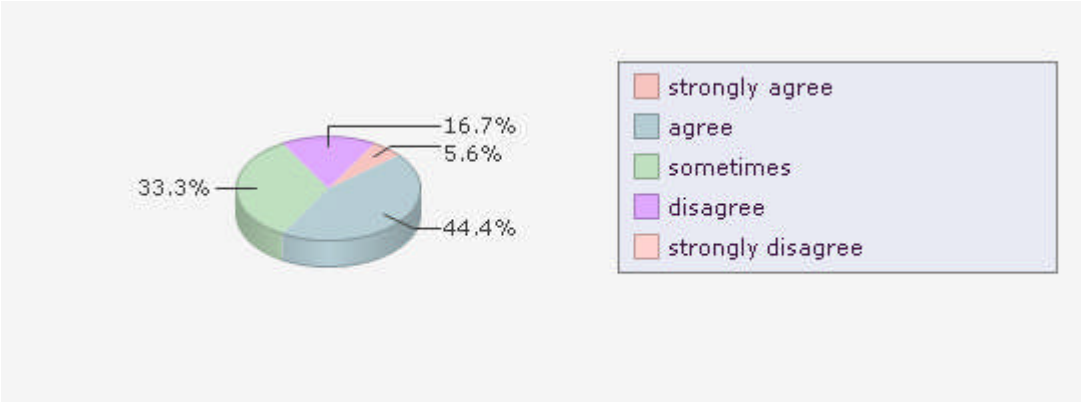
Mean	2.6
Standard Deviation	0.8

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



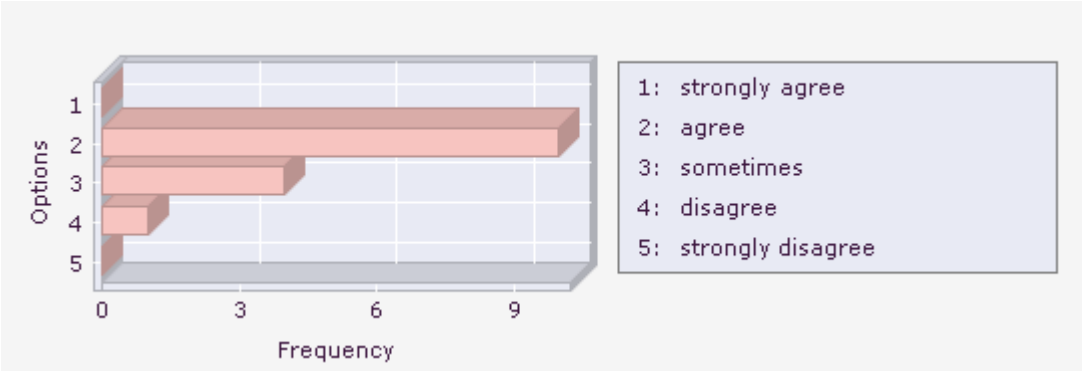
Knowledge and understanding of science and technology as it relates to DSA, MRI and Ultrasound

Q35. Graduates can recognize a wide range of anatomical structures on MRI images

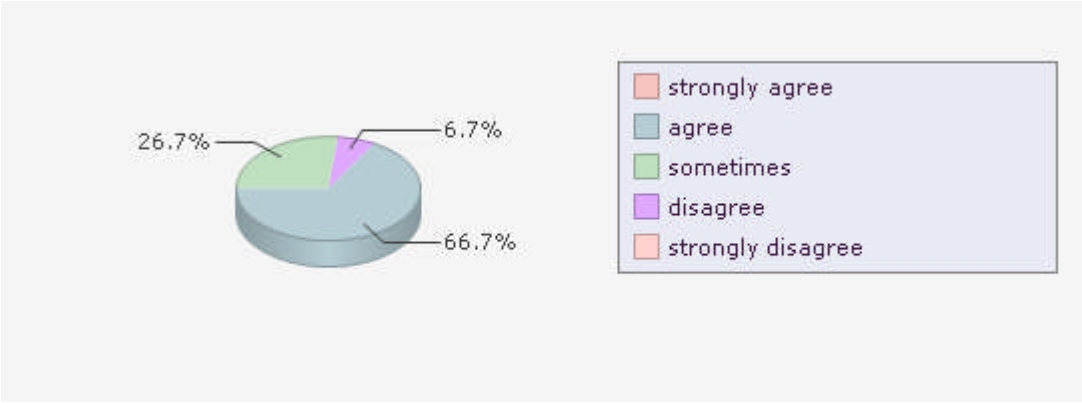
Respondent Group	Staff	
Option	f	%
strongly agree	0	0.0
agree	10	66.7
sometimes	4	26.7
disagree	1	6.7
strongly disagree	0	0.0
Total	15	
Mean	2.4	
Standard Deviation	0.6	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



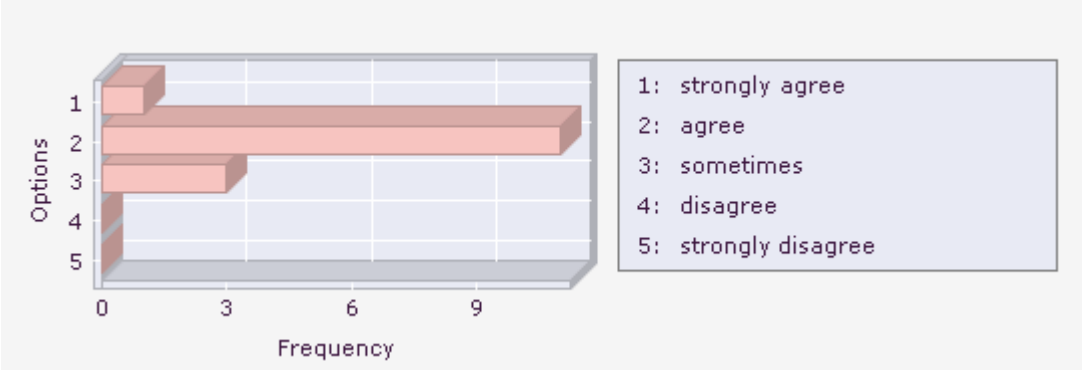
Knowledge and understanding of science and technology as it relates to DSA, MRI and Ultrasound

Q36. Graduates have a sound understanding of digital image processing and are able to apply these principles to DSA

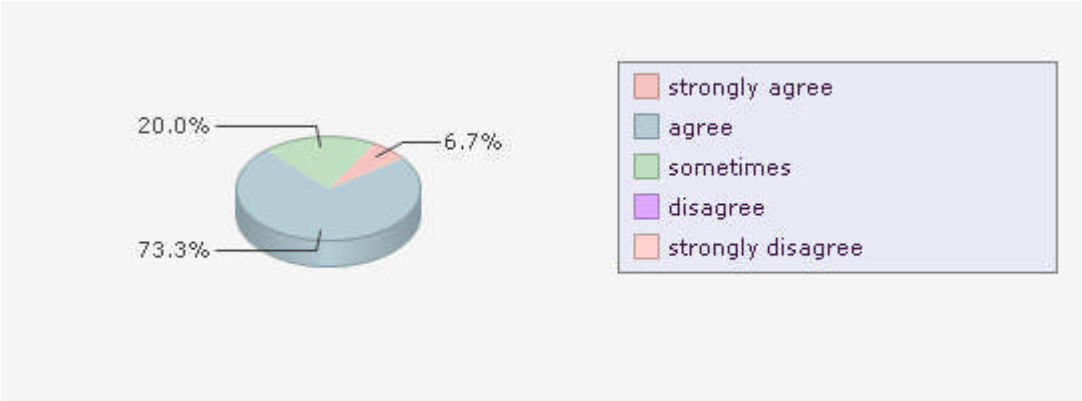
Respondent Group	Staff	
Option	f	%
strongly agree	1	6.7
agree	11	73.3
sometimes	3	20.0
disagree	0	0.0
strongly disagree	0	0.0
Total	15	
Mean	2.1	
Standard Deviation	0.5	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



SECTION 3: Monash Graduates

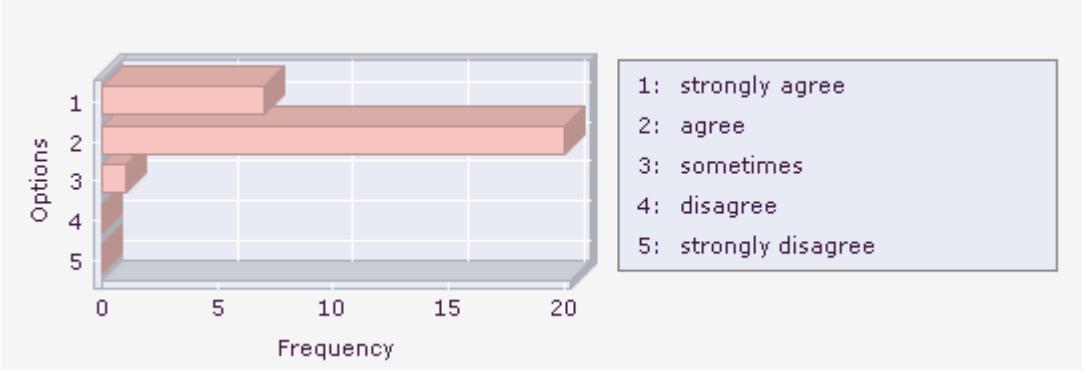
Monash graduate attributes

Q37. Graduates are able to convey clearly and accurately meanings and purposes in written format

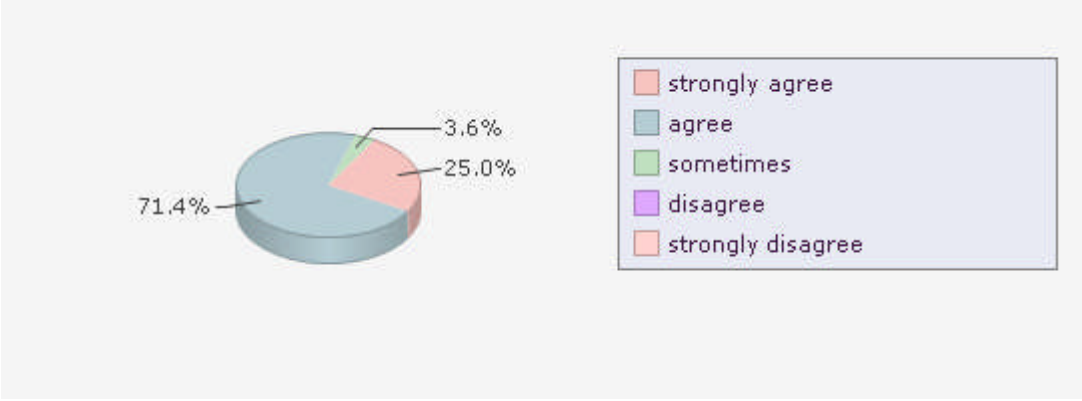
Respondent Group	Staff	
Option	f	%
strongly agree	7	25.0
agree	20	71.4
sometimes	1	3.6
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	1.8	
Standard Deviation	0.5	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



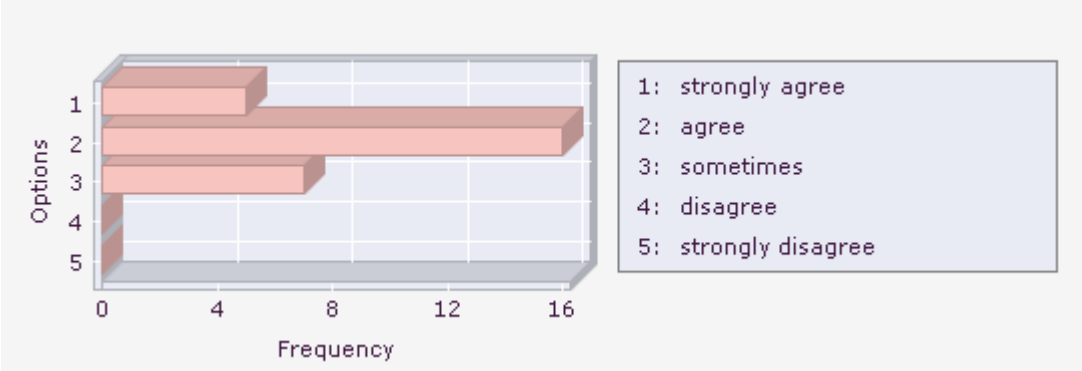
Monash graduate attributes

Q38. Graduates are able to tailor oral communication so that it is appropriate for a variety of interpersonal and professional interactions

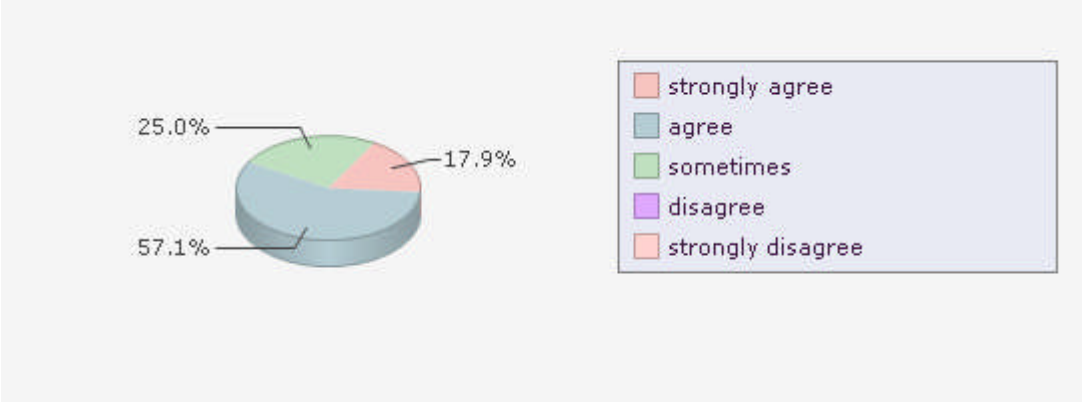
Respondent Group	Staff	
Option	f	%
strongly agree	5	17.9
agree	16	57.1
sometimes	7	25.0
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	2.1	
Standard Deviation	0.7	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



Monash graduate attributes

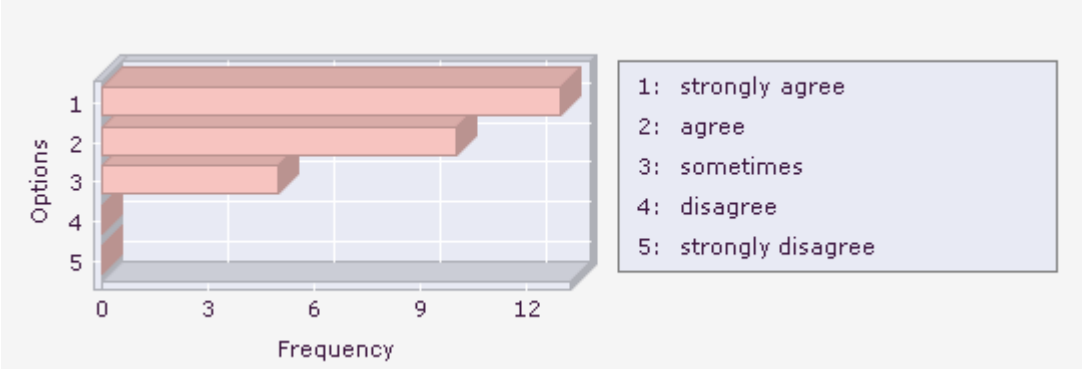
Q39. Graduates exhibit enthusiasm for their work

Respondent Group	Staff	
Option	f	%
strongly agree	13	46.4
agree	10	35.7
sometimes	5	17.9
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	1.7	

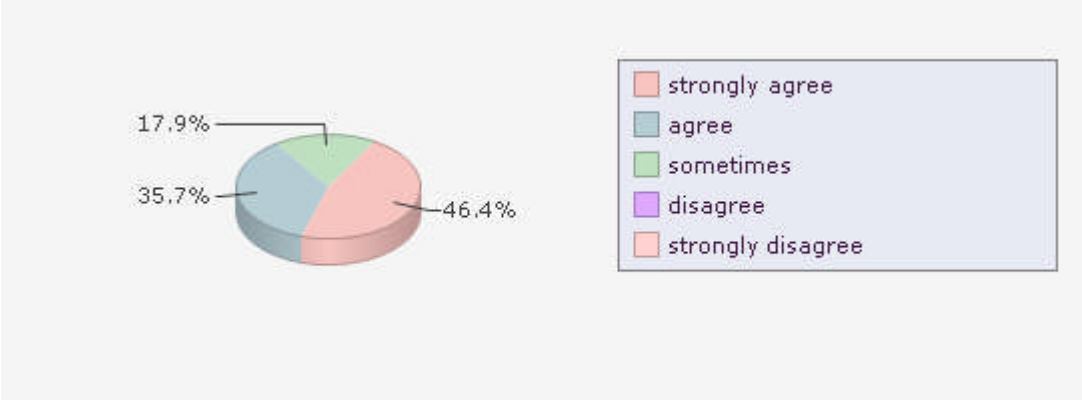
Standard Deviation	0.8

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



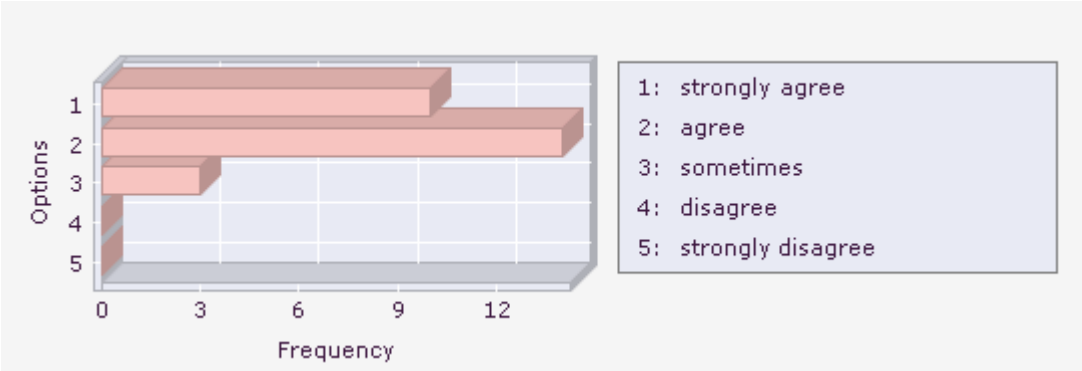
Monash graduate attributes

Q40. Graduates display an ability to collaborate effectively with colleagues for the benefit of patients

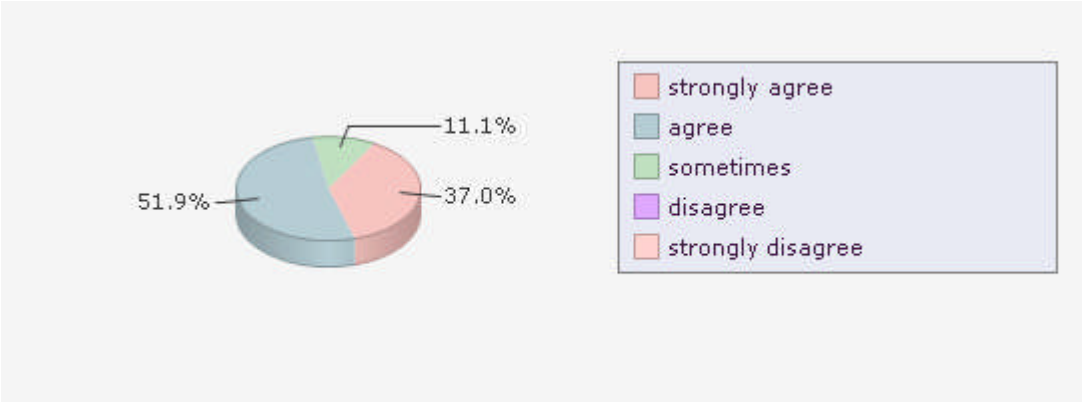
Respondent Group	Staff	
Option	f	%
strongly agree	10	37.0
agree	14	51.9
sometimes	3	11.1
disagree	0	0.0
strongly disagree	0	0.0
Total	27	
Mean	1.7	
Standard Deviation	0.7	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



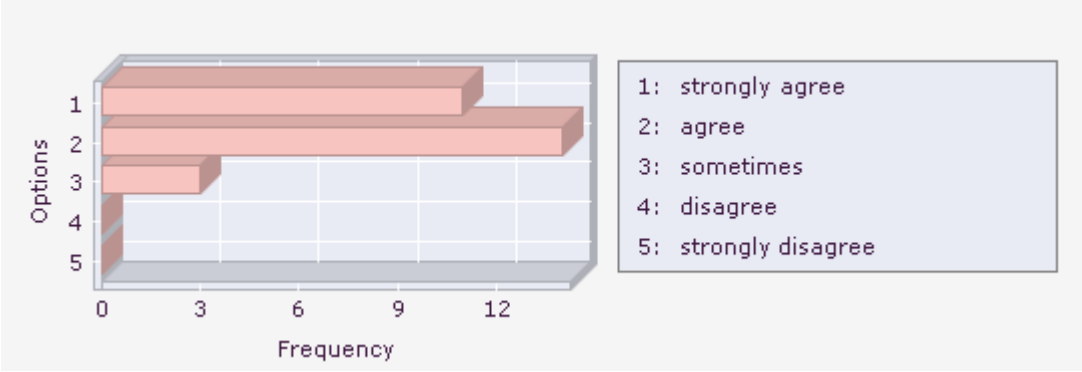
Monash graduate attributes

Q41. Graduates can work as a team member

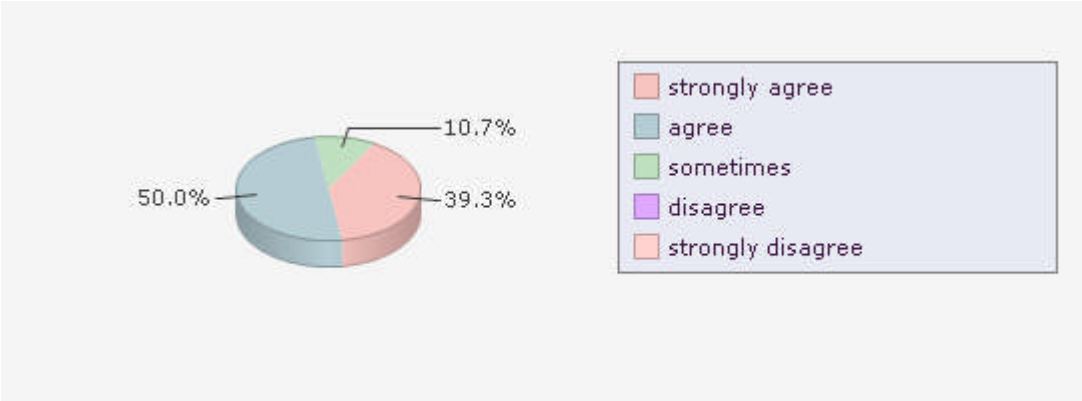
Respondent Group	Staff	
Option	f	%
strongly agree	11	39.3
agree	14	50.0
sometimes	3	10.7
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	1.7	
Standard Deviation	0.7	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



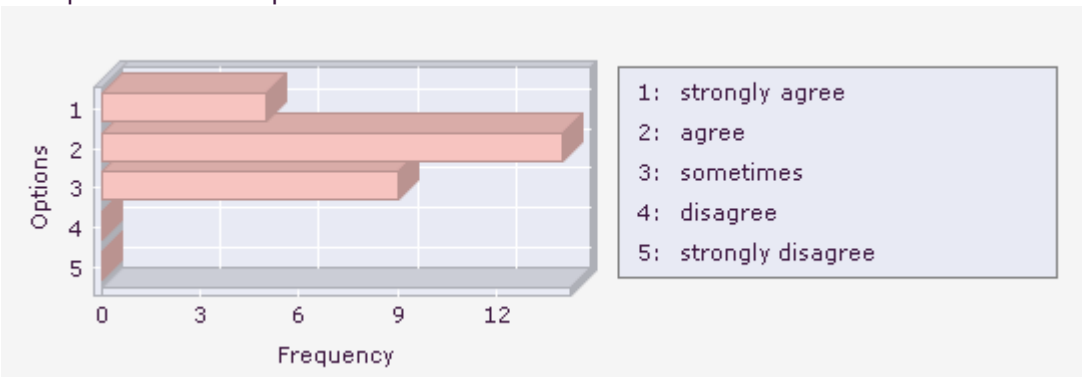
Monash graduate attributes

Q42. Graduates have the capacity to articulate a sound argument

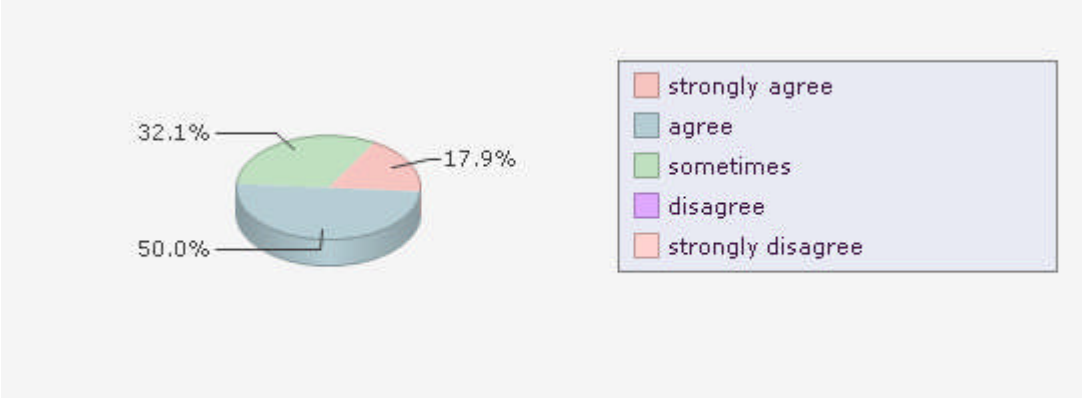
Respondent Group	Staff	
Option	f	%
strongly agree	5	17.9
agree	14	50.0
sometimes	9	32.1
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	2.1	
Standard Deviation	0.7	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



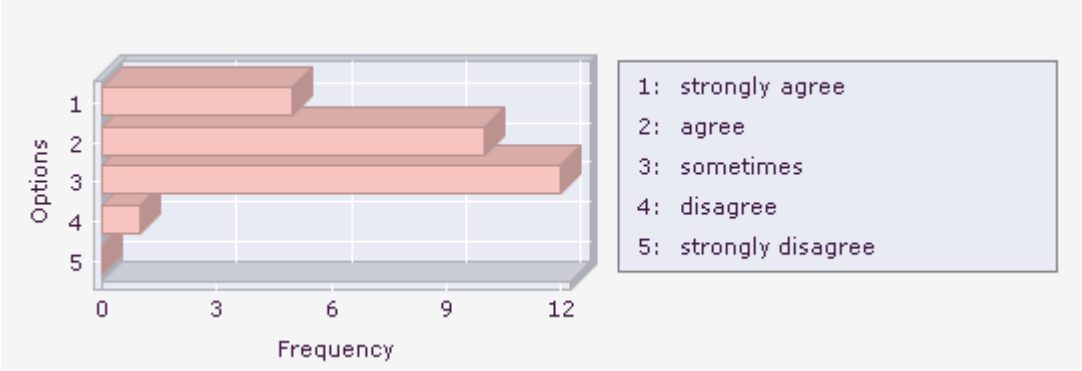
Monash graduate attributes

Q43. Graduates recognize their limitations

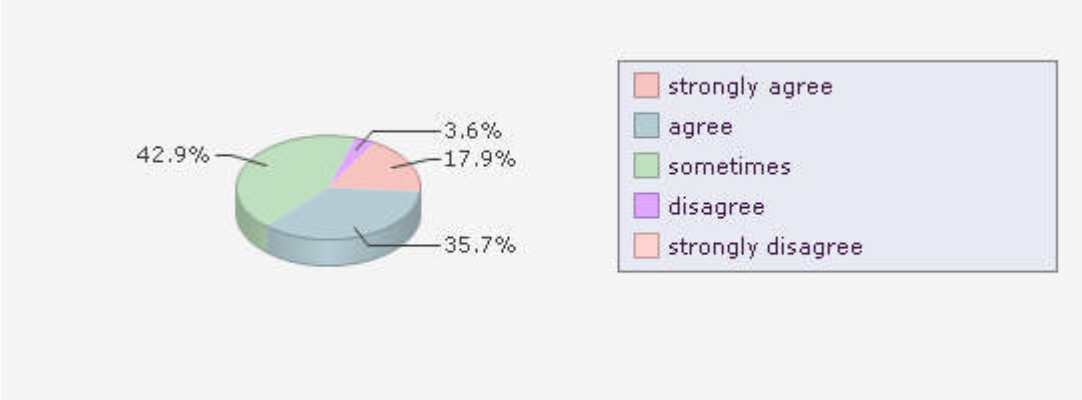
Respondent Group	Staff	
Option	f	%
strongly agree	5	17.9
agree	10	35.7
sometimes	12	42.9
disagree	1	3.6
strongly disagree	0	0.0
Total	28	
Mean	2.3	
Standard Deviation	0.8	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



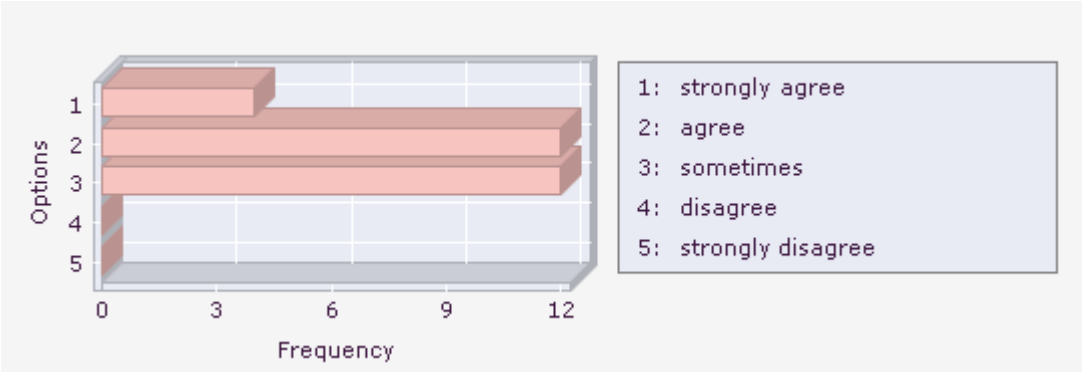
Monash graduate attributes

Q44. Graduates possess the capacity to formulate innovative solutions to radiographic challenges whilst remaining sensitive to ethical, social and cultural practices

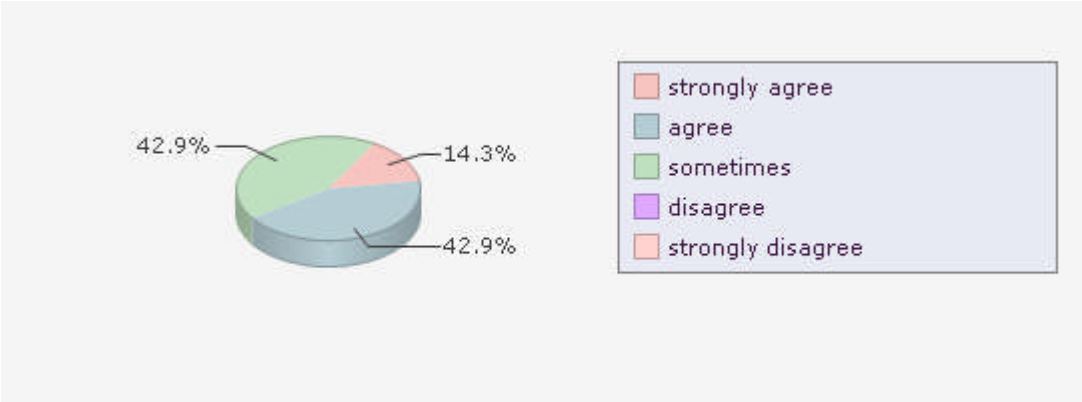
Respondent Group	Staff	
Option	f	%
strongly agree	4	14.3
agree	12	42.9
sometimes	12	42.9
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	2.3	
Standard Deviation	0.7	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



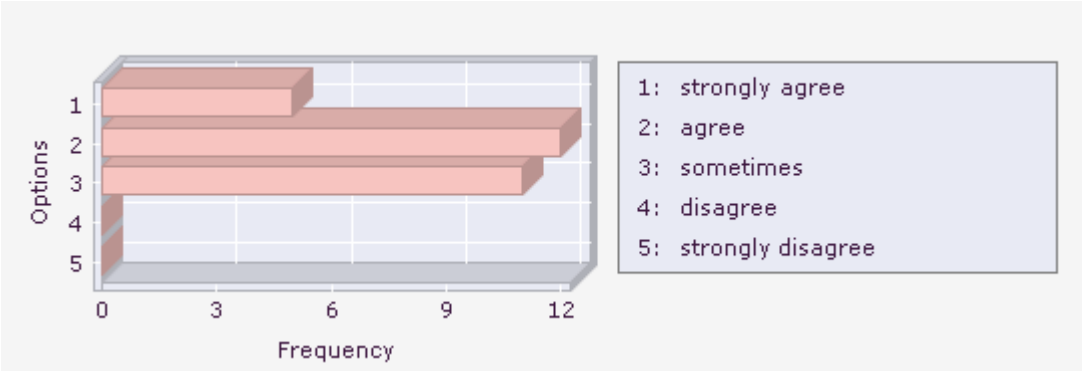
Monash graduate attributes

Q45. Graduates possess the ability to apply critical thinking in the workplace (make accurate inferences from data that is presented and draw appropriate conclusions)

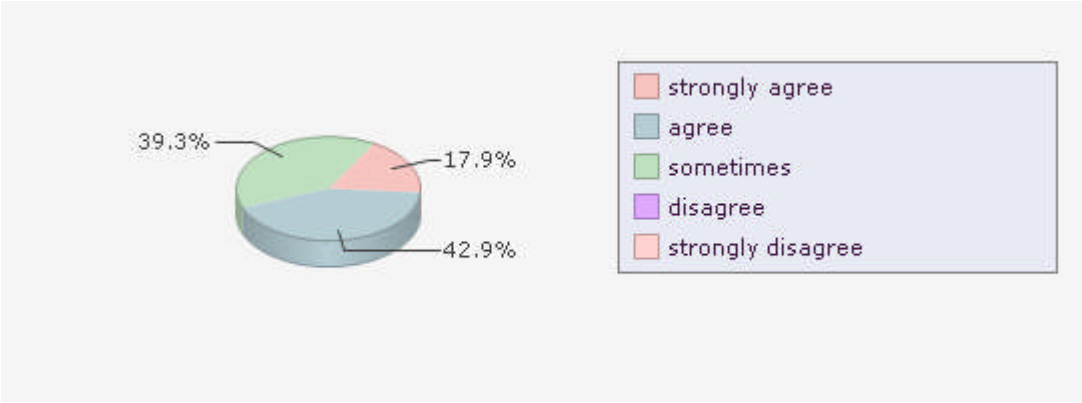
Respondent Group	Staff	
Option	f	%
strongly agree	5	17.9
agree	12	42.9
sometimes	11	39.3
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	2.2	
Standard Deviation	0.7	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



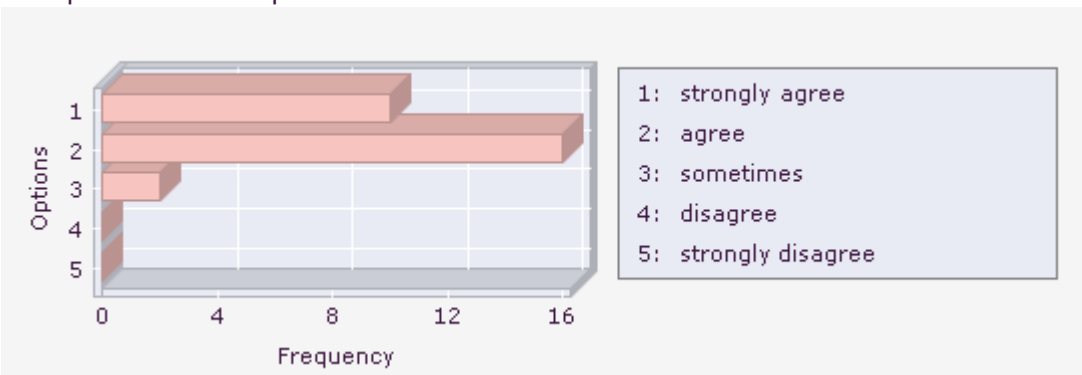
Monash graduate attributes

Q46. Graduates have the ability to use IT resources effectively to manage, communicate and share information with others

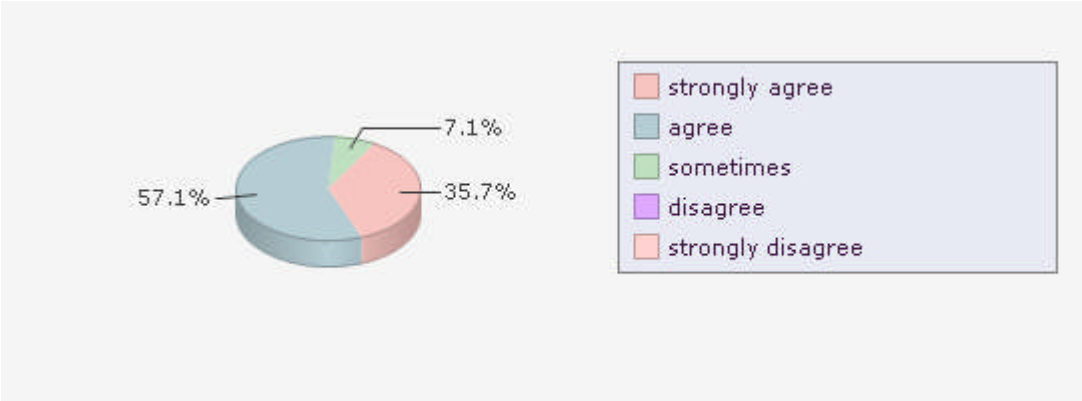
Respondent Group	Staff	
Option	f	%
strongly agree	10	35.7
agree	16	57.1
sometimes	2	7.1
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	1.7	
Standard Deviation	0.6	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



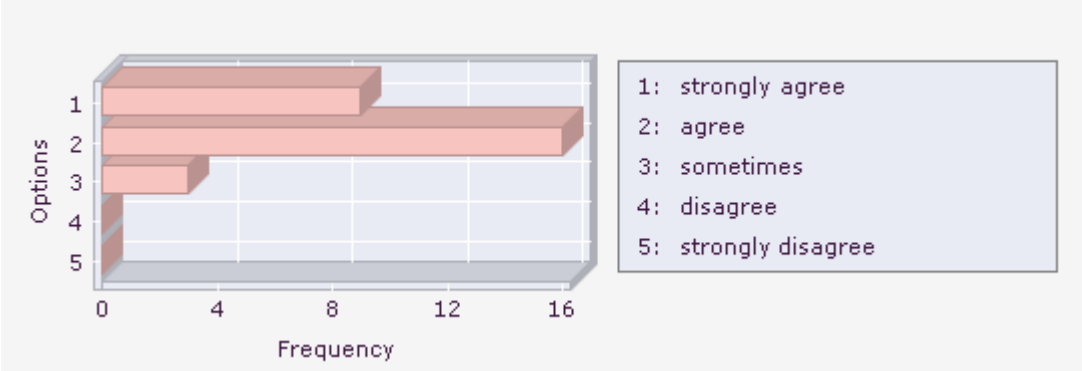
Monash graduate attributes

Q47. When information is needed graduates have the capacity to locate it effectively

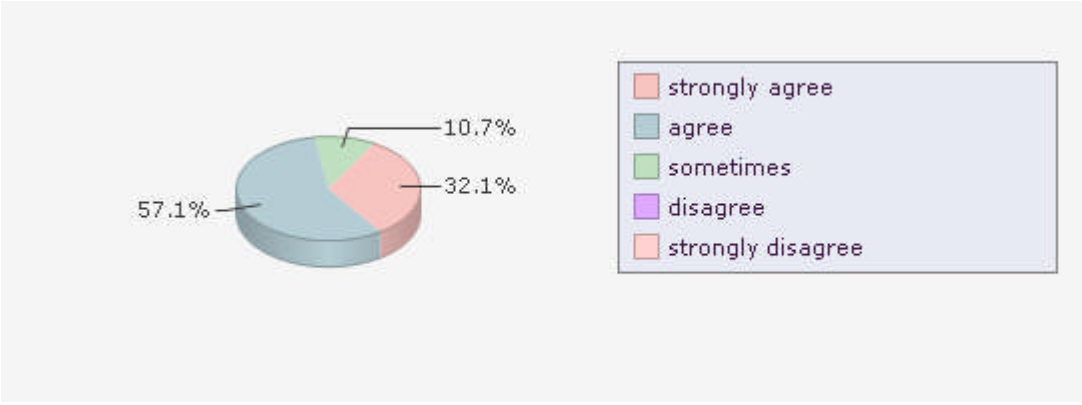
Respondent Group	Staff	
Option	f	%
strongly agree	9	32.1
agree	16	57.1
sometimes	3	10.7
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	1.8	
Standard Deviation	0.6	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



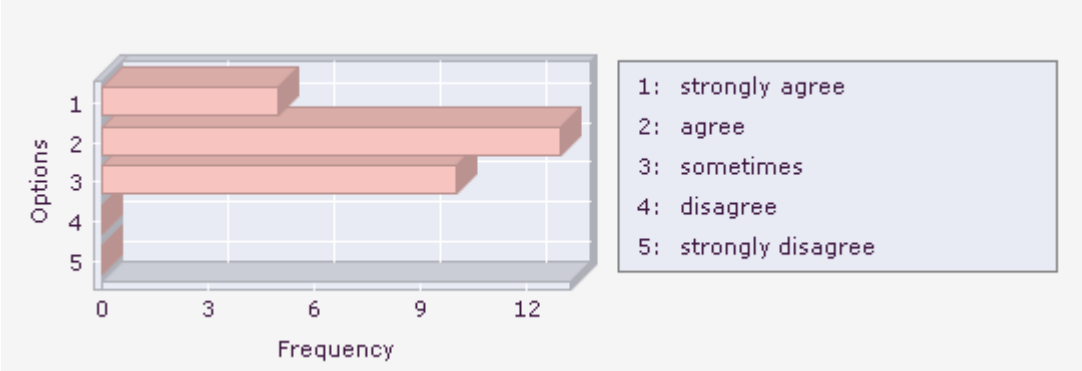
Monash graduate attributes

Q48. Graduates exhibit a reflective stance to their work

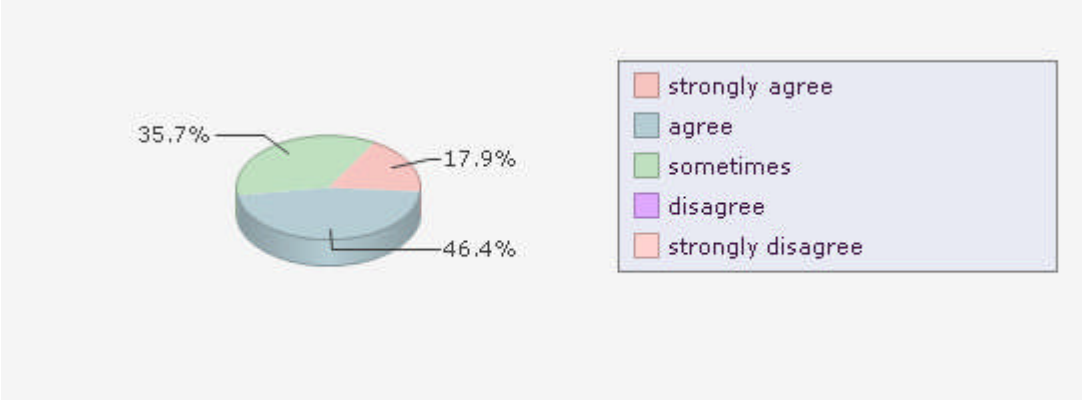
Respondent Group	Staff	
Option	f	%
strongly agree	5	17.9
agree	13	46.4
sometimes	10	35.7
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	2.2	
Standard Deviation	0.7	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



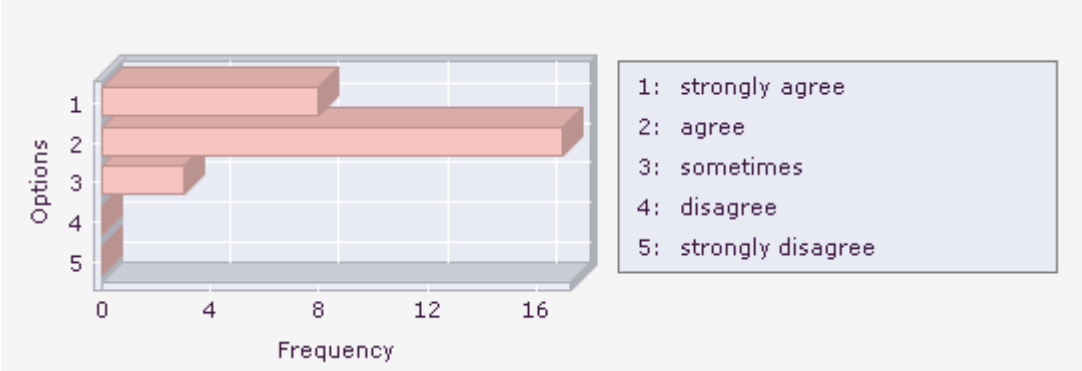
Monash graduate attributes

Q49. Graduates display appropriate levels of care when interacting with patients

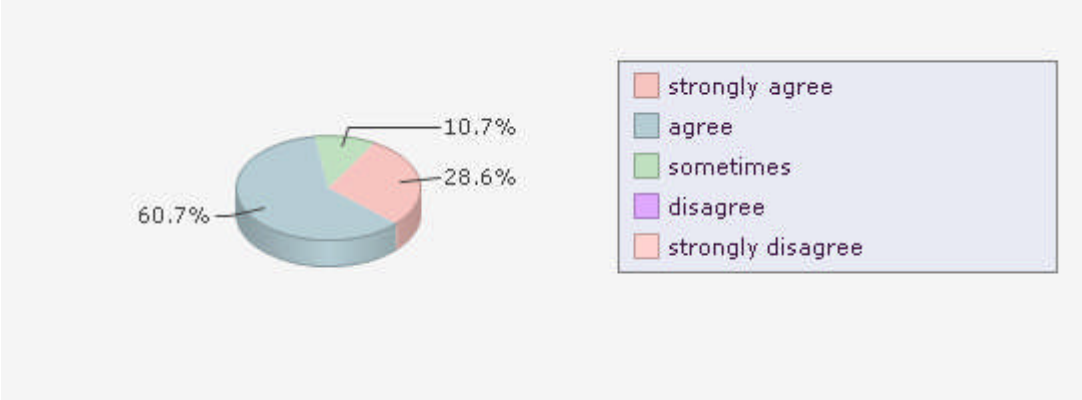
Respondent Group	Staff	
Option	f	%
strongly agree	8	28.6
agree	17	60.7
sometimes	3	10.7
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	1.8	
Standard Deviation	0.6	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



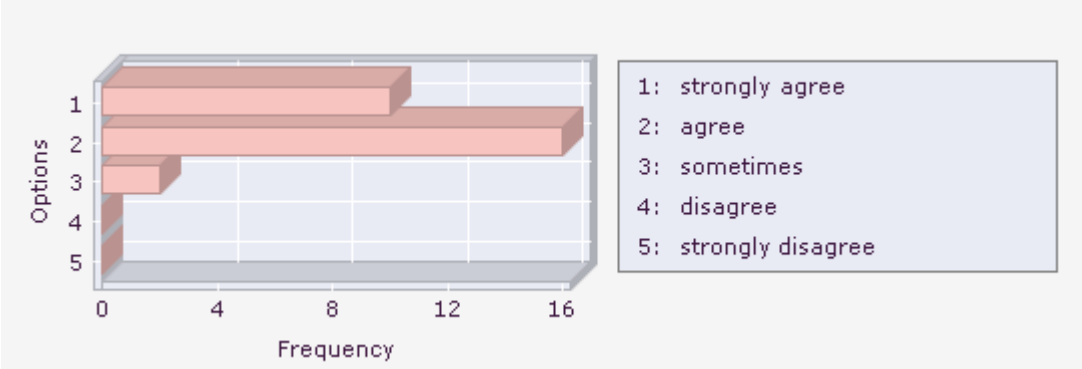
Monash graduate attributes

Q50. Graduates accord patients dignity and respect

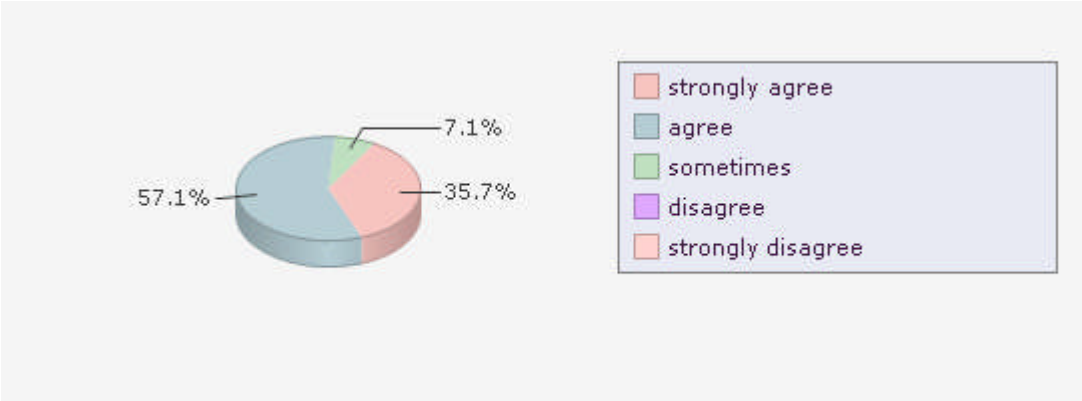
Respondent Group	Staff	
Option	f	%
strongly agree	10	35.7
agree	16	57.1
sometimes	2	7.1
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	1.7	
Standard Deviation	0.6	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



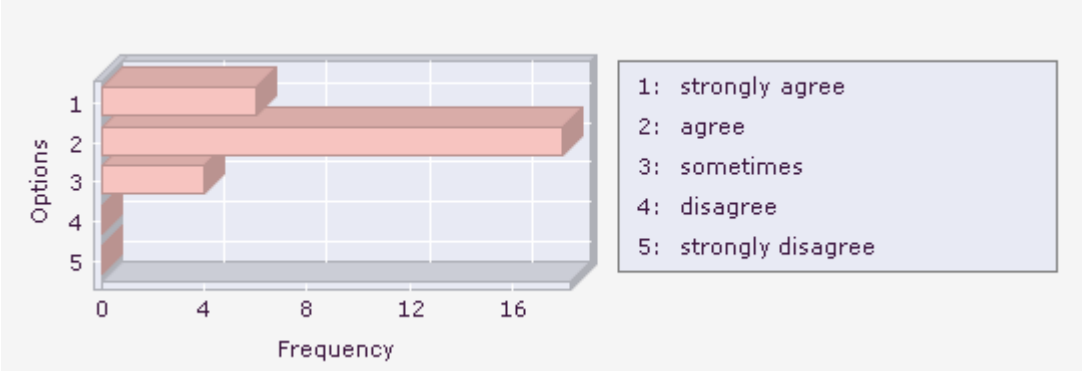
Monash graduate attributes

Q51. Graduates are aware of, and understand and respect, cultural differences and sensitivities

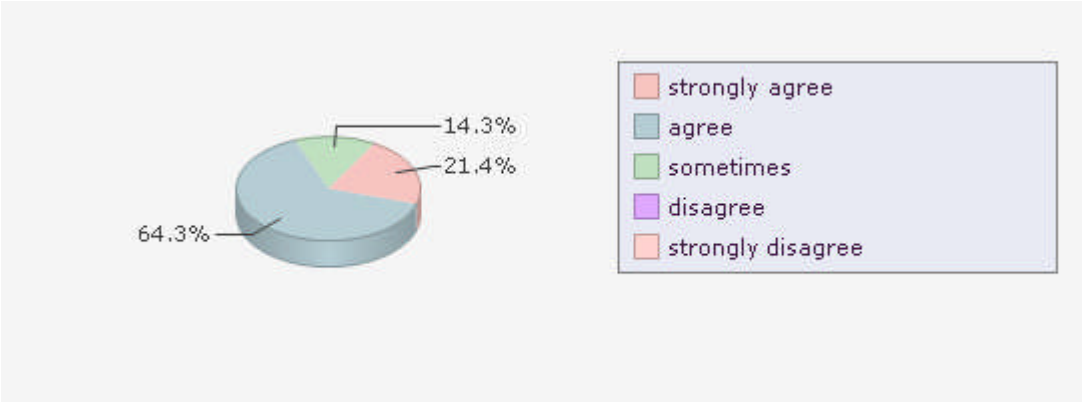
Respondent Group	Staff	
Option	f	%
strongly agree	6	21.4
agree	18	64.3
sometimes	4	14.3
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	1.9	
Standard Deviation	0.6	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



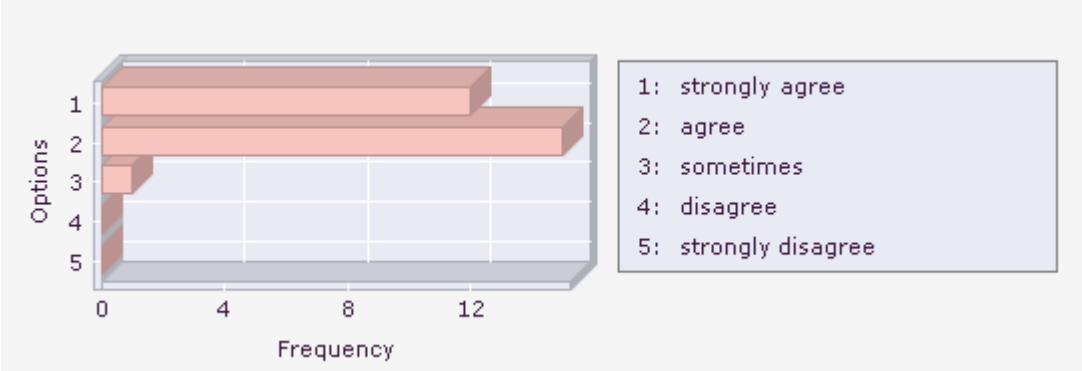
Monash graduate attributes

Q52. Graduates are interested in ongoing professional development

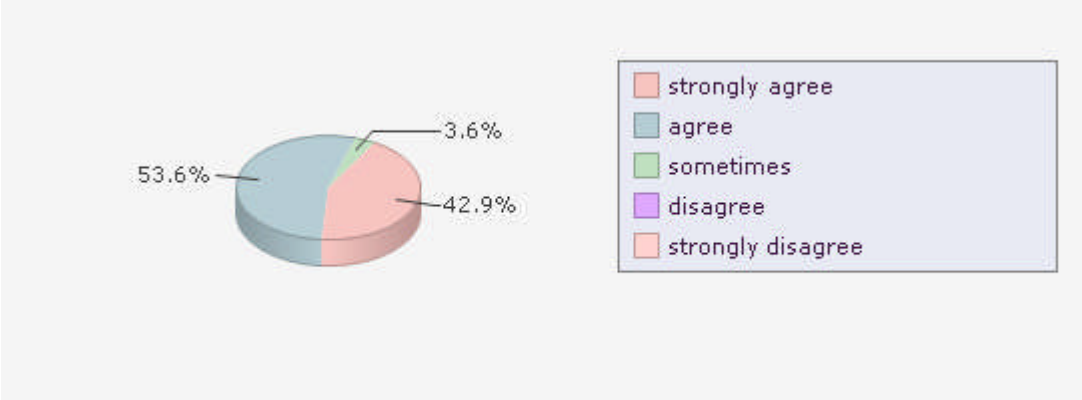
Respondent Group	Staff	
Option	f	%
strongly agree	12	42.9
agree	15	53.6
sometimes	1	3.6
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	1.6	
Standard Deviation	0.6	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



SECTION 4: Clinical competency

General Radiography

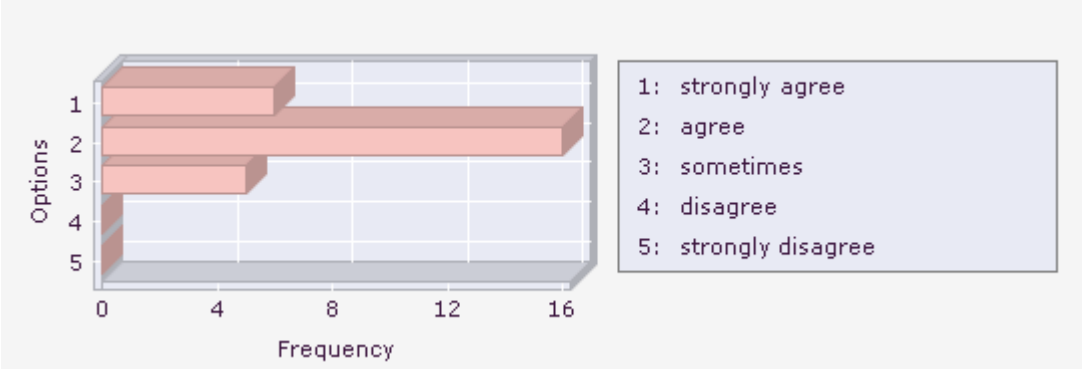
Q53. Graduates can match the choice of radiographic projections with the clinical indications with little or no supervision

Respondent Group	Staff	
Option	f	%
strongly agree	6	22.2
agree	16	59.3
sometimes	5	18.5
disagree	0	0.0
strongly disagree	0	0.0
Total	27	
Mean	2.0	

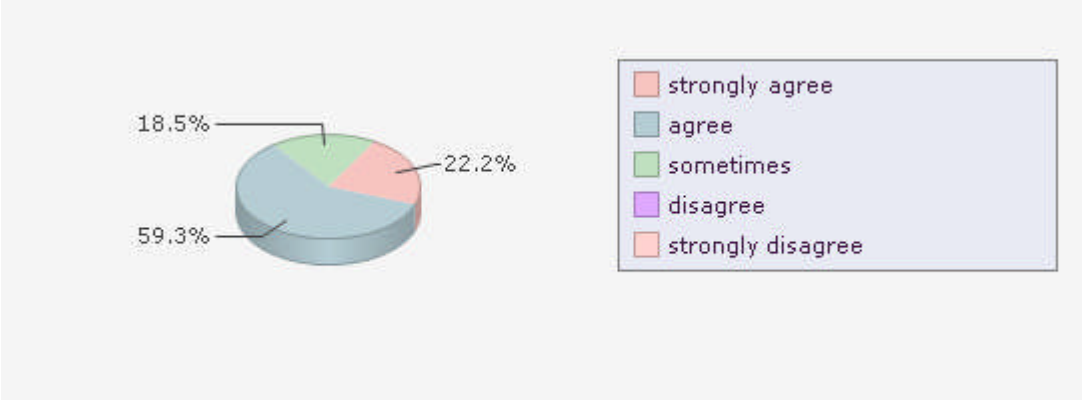
Standard Deviation	0.7

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



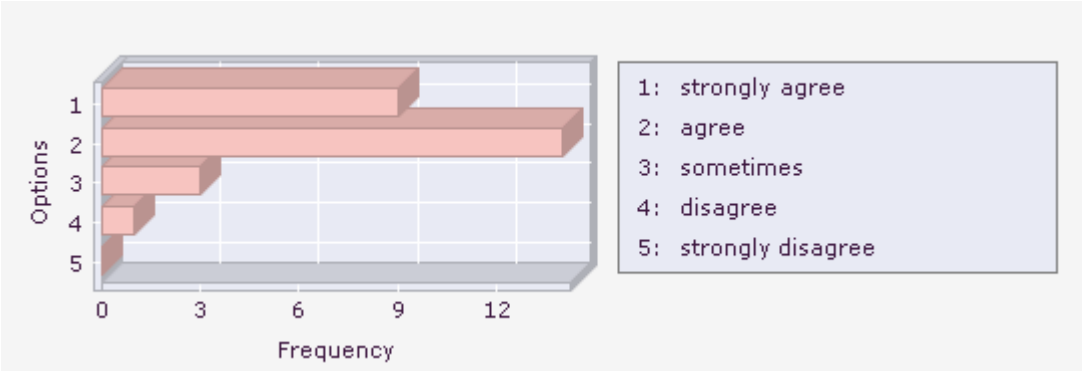
General Radiography

Q54. Graduates are able to examine cooperative adults for a full range of general radiographic examinations of the musculoskeletal system, gastroinstestinal tract, renal system and respiratory, cardiovascular and neurological systems with little or no supervision

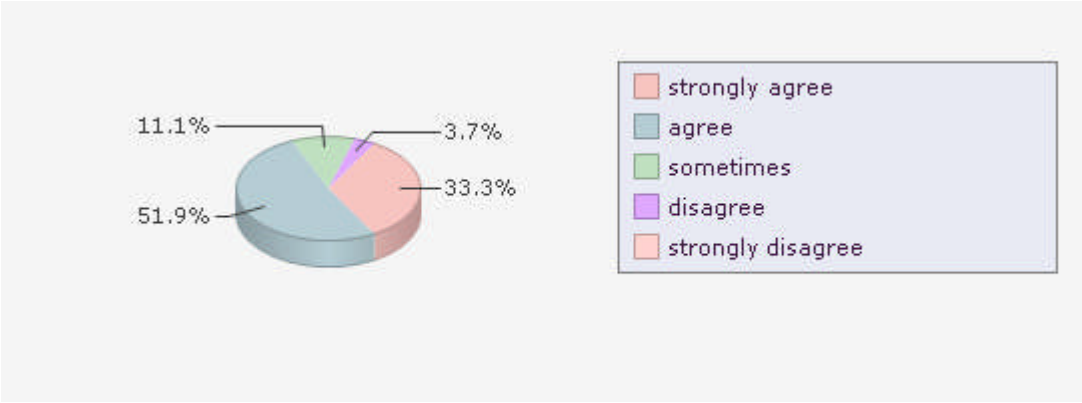
Respondent Group	Staff	
Option	f	%
strongly agree	9	33.3
agree	14	51.9
sometimes	3	11.1
disagree	1	3.7
strongly disagree	0	0.0
Total	27	
Mean	1.9	
Standard Deviation	0.8	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



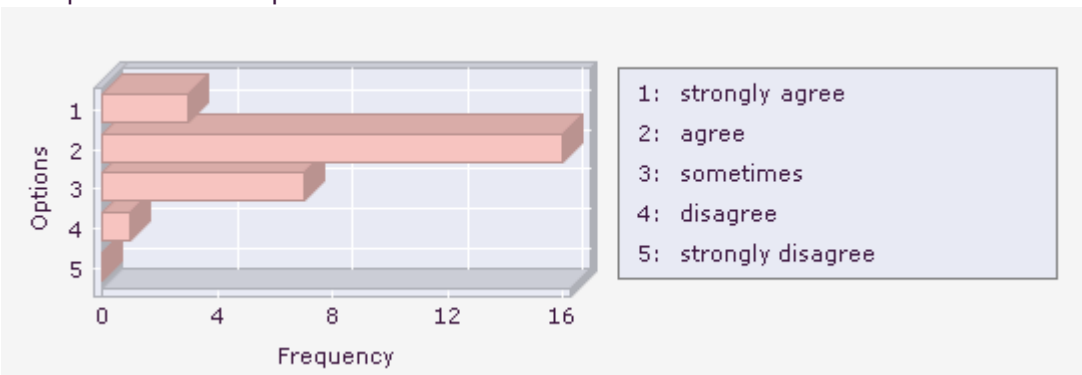
General Radiography

Q55. Graduates are able to modify general radiographic methods for accident and emergency patients with little or no supervision

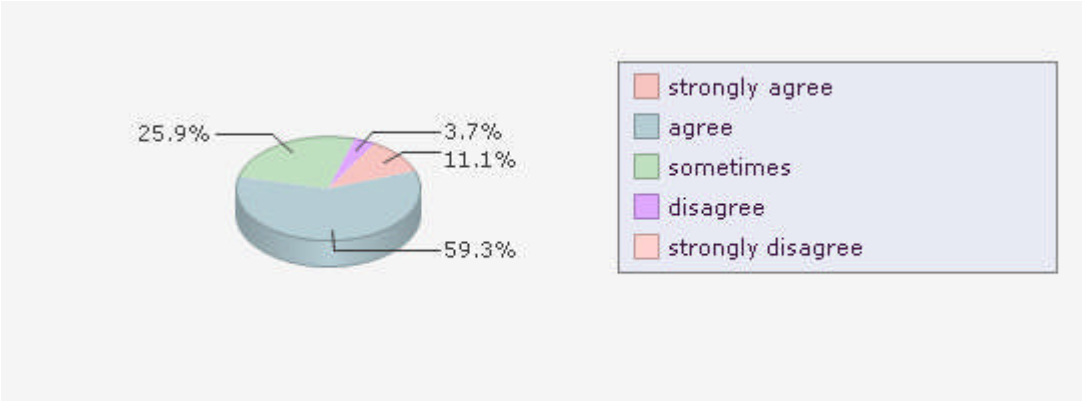
Respondent Group	Staff	
Option	f	%
strongly agree	3	11.1
agree	16	59.3
sometimes	7	25.9
disagree	1	3.7
strongly disagree	0	0.0
Total	27	
Mean	2.2	
Standard Deviation	0.7	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



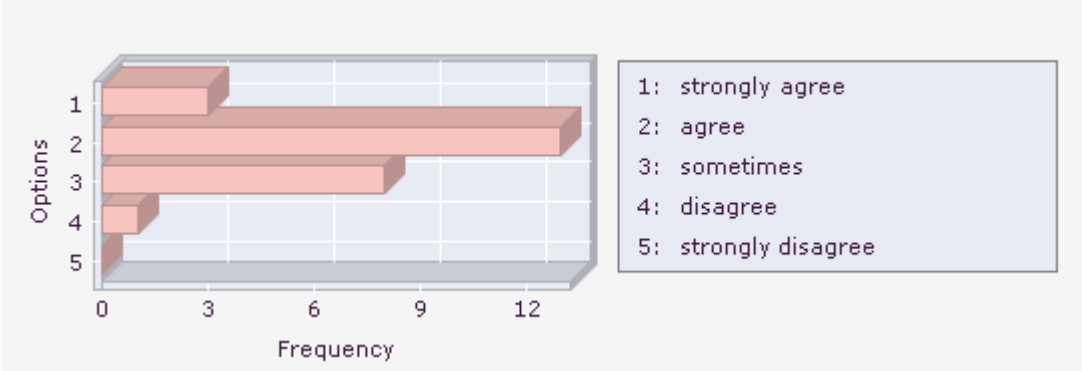
General Radiography

Q56. Graduates are able to modify general radiographic methods for accident and emergency patients with little or no supervision

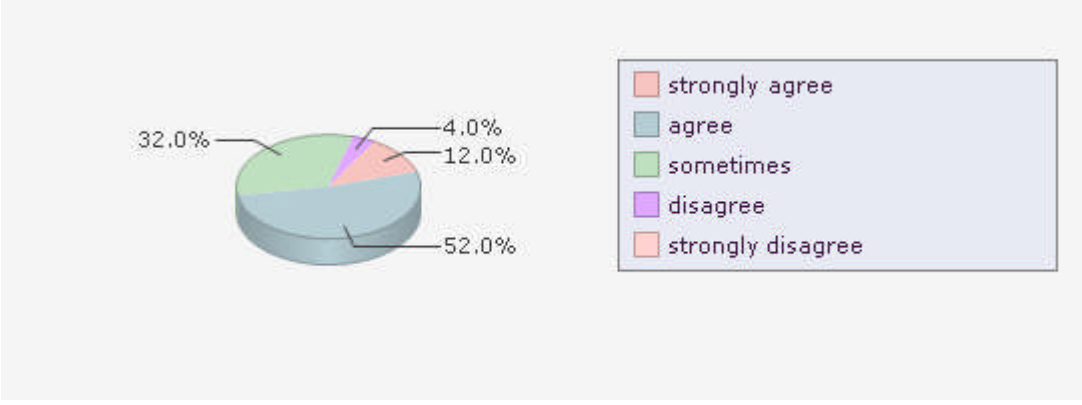
Respondent Group	Staff	
Option	f	%
strongly agree	3	12.0
agree	13	52.0
sometimes	8	32.0
disagree	1	4.0
strongly disagree	0	0.0
Total	25	
Mean	2.3	
Standard Deviation	0.7	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



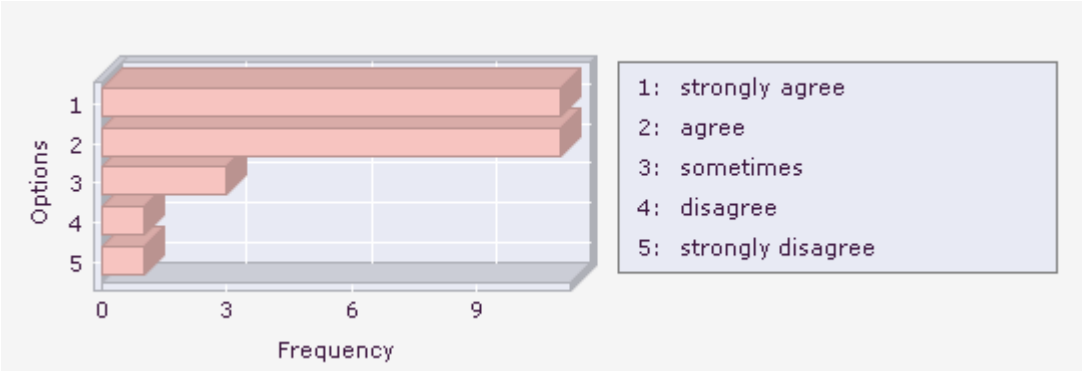
General Radiography

Q57. Graduates are able to perform mobile radiographic examinations of the chest with little or no supervision

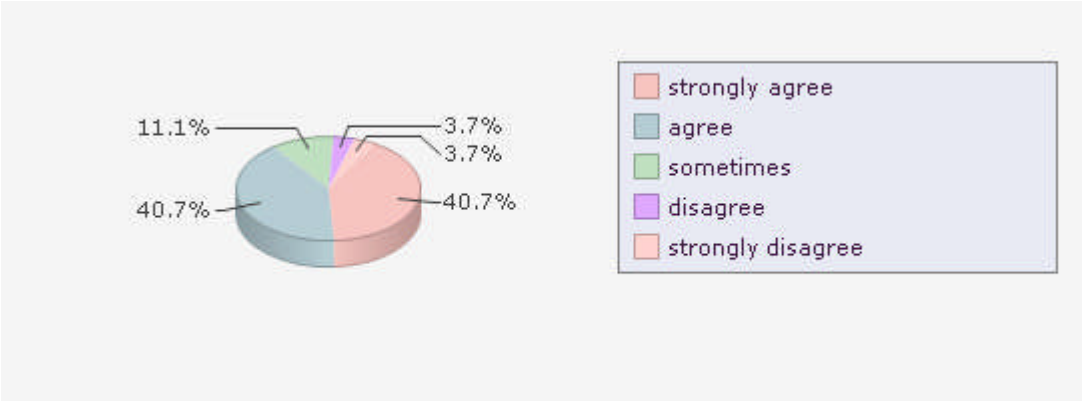
Respondent Group	Staff	
Option	f	%
strongly agree	11	40.7
agree	11	40.7
sometimes	3	11.1
disagree	1	3.7
strongly disagree	1	3.7
Total	27	
Mean	1.9	
Standard Deviation	1.0	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



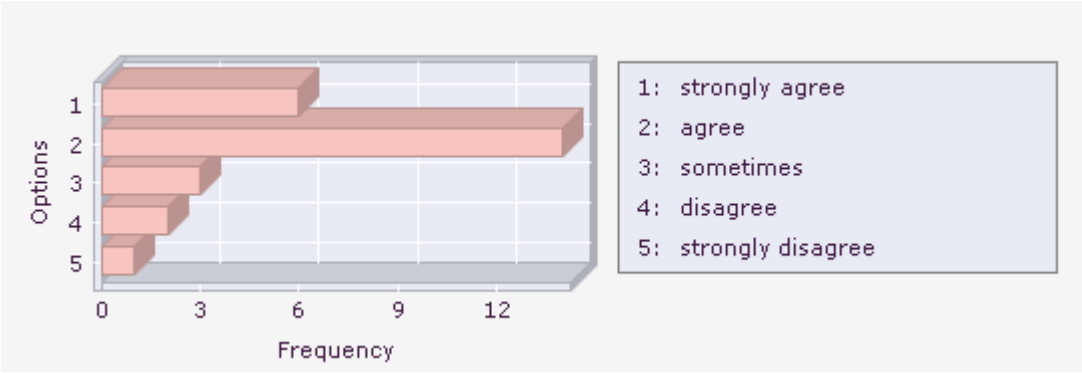
General Radiography

Q58. Graduates are able to perform theatre imaging with little or no supervision

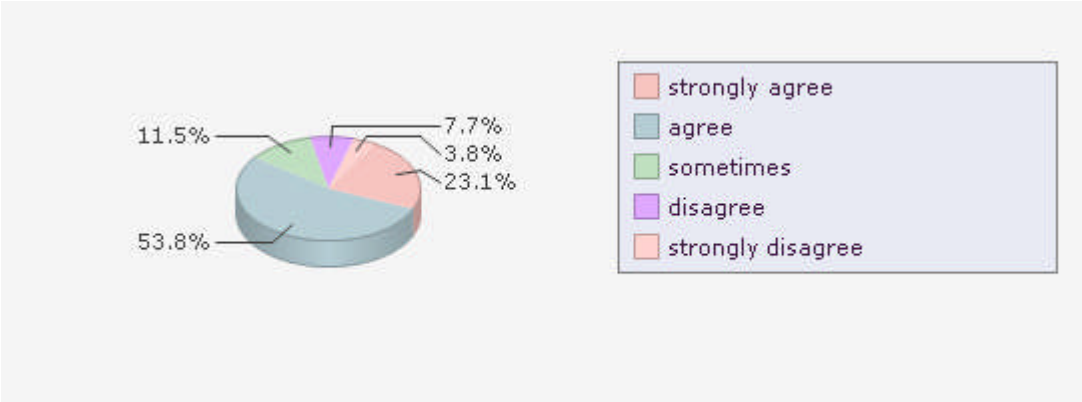
Respondent Group	Staff	
Option	f	%
strongly agree	6	23.1
agree	14	53.8
sometimes	3	11.5
disagree	2	7.7
strongly disagree	1	3.8
Total	26	
Mean	2.2	
Standard Deviation	1.0	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



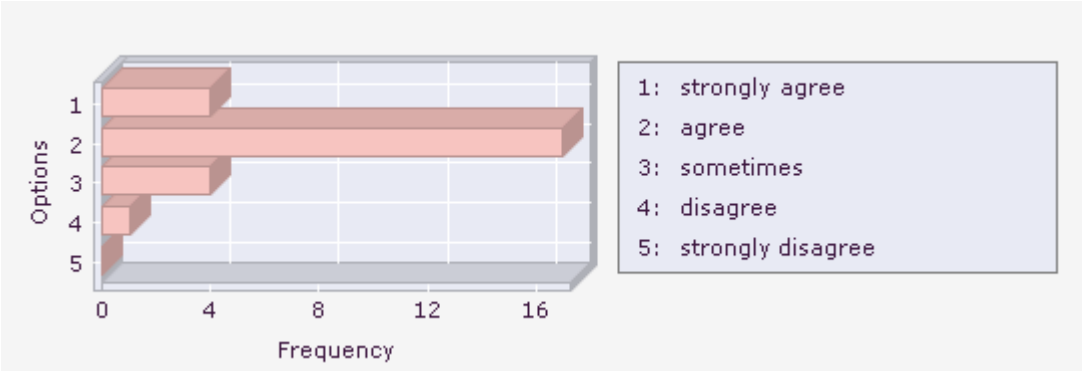
General Radiography

Q59. Graduates are able to provide patients with appropriate and relevant information concerning pre and post preparation examination protocols

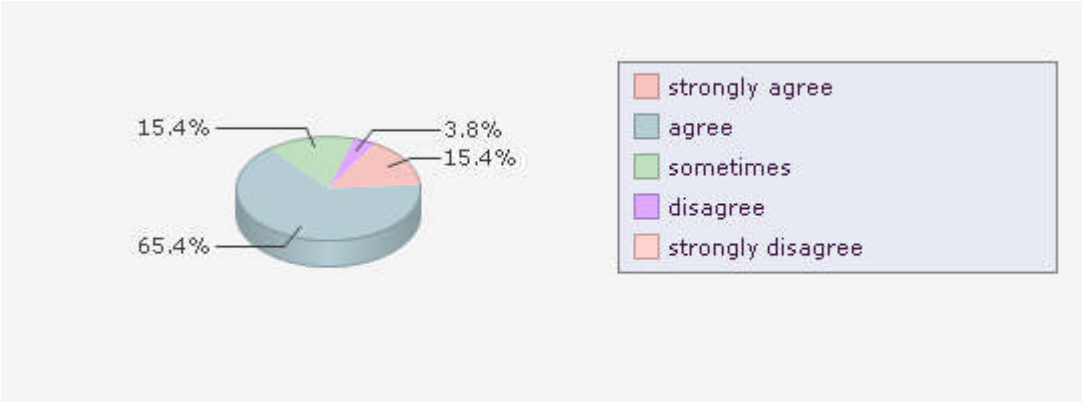
Respondent Group	Staff	
Option	f	%
strongly agree	4	15.4
agree	17	65.4
sometimes	4	15.4
disagree	1	3.8
strongly disagree	0	0.0
Total	26	
Mean	2.1	
Standard Deviation	0.7	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



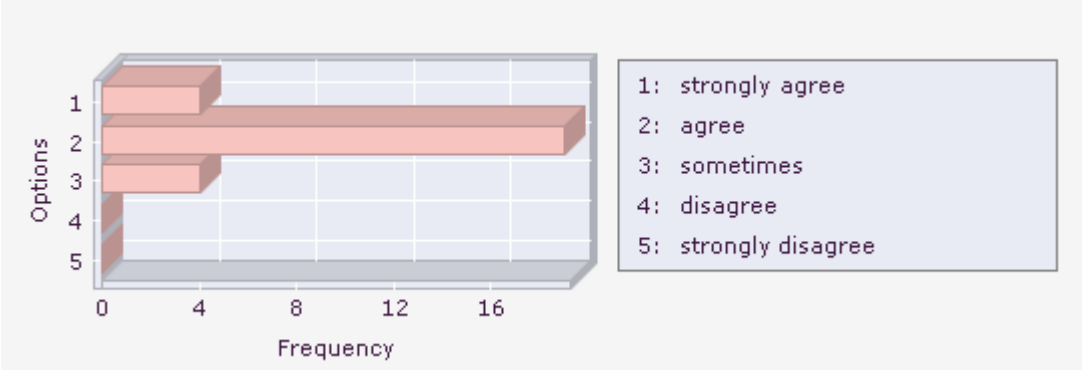
General Radiography

Q60. Graduates can apply the principles of radiographic image critique to general radiographic images in a manner consistent with competent practice with little or no supervision

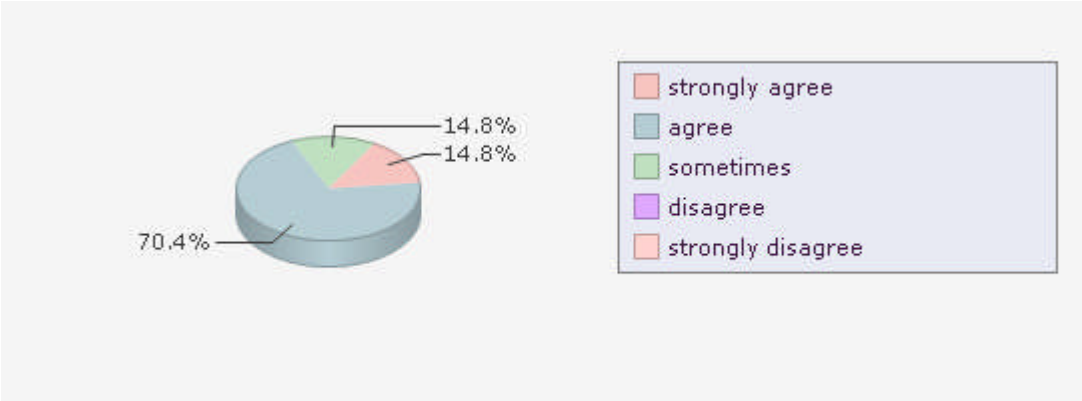
Respondent Group	Staff	
Option	f	%
strongly agree	4	14.8
agree	19	70.4
sometimes	4	14.8
disagree	0	0.0
strongly disagree	0	0.0
Total	27	
Mean	2.0	
Standard Deviation	0.6	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



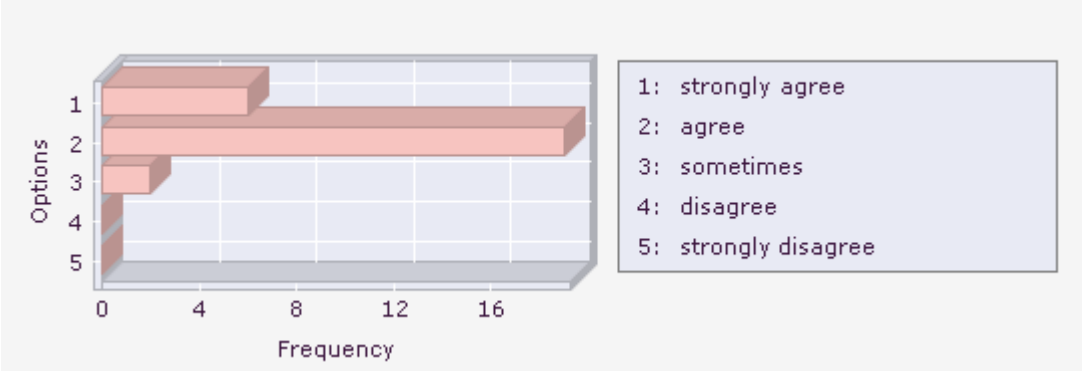
General Radiography

Q61. Graduates can assess their work in a manner that indicates ongoing professional development

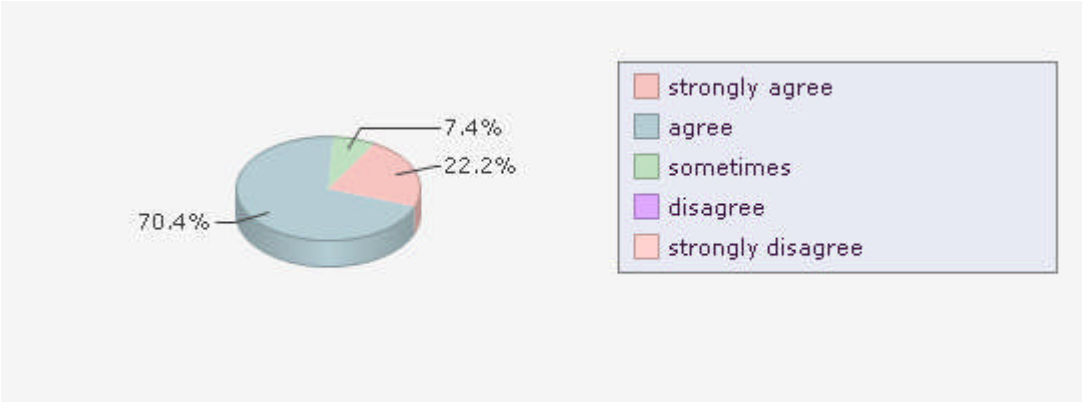
Respondent Group	Staff	
Option	f	%
strongly agree	6	22.2
agree	19	70.4
sometimes	2	7.4
disagree	0	0.0
strongly disagree	0	0.0
Total	27	
Mean	1.9	
Standard Deviation	0.5	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



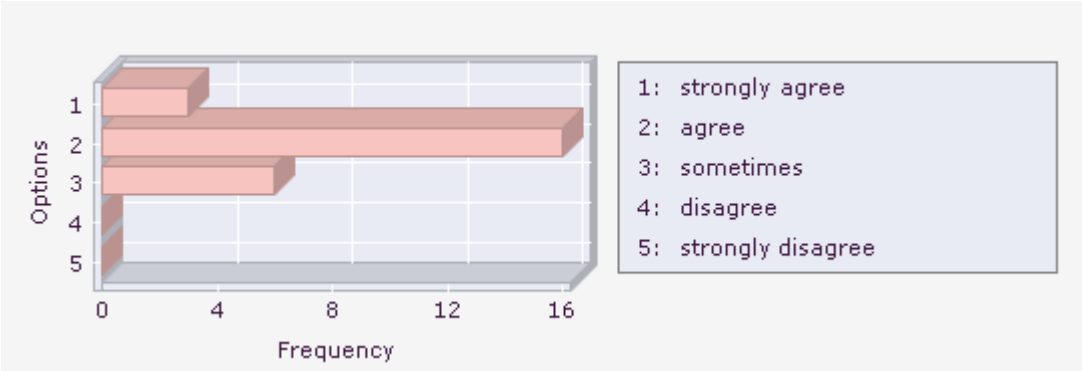
Computed Tomography

Q62. Graduates can match the choice of imaging protocols with the clinical indications with little or no supervision

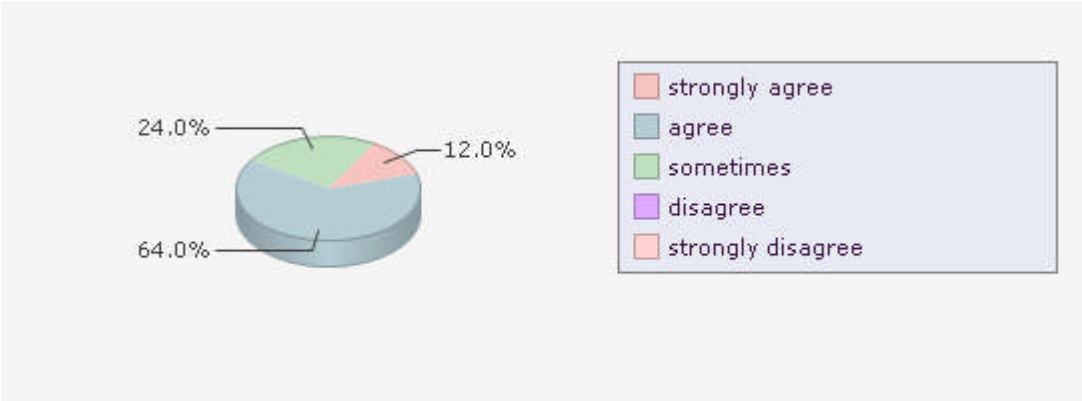
Respondent Group	Staff	
Option	f	%
strongly agree	3	12.0
agree	16	64.0
sometimes	6	24.0
disagree	0	0.0
strongly disagree	0	0.0
Total	25	
Mean	2.1	
Standard Deviation	0.6	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



Computed Tomography

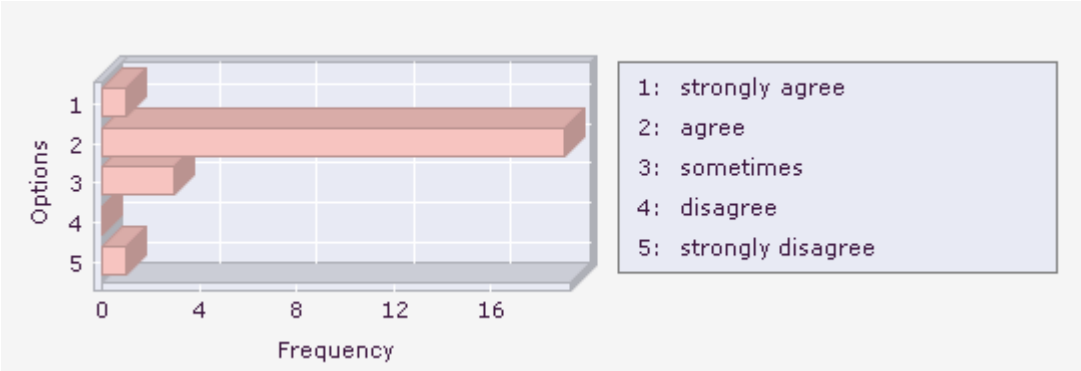
Q63. Graduates are able to examine cooperative adults for a standard range of CT examinations of the musculoskeletal system, gastroinstestinal tract, renal system and respiratory, cardiovascular and neurological systems with little or no supervision

Respondent Group	Staff	
Option	f	%
strongly agree	1	4.2
agree	19	79.2
sometimes	3	12.5
disagree	0	0.0
strongly disagree	1	4.2
Total	24	

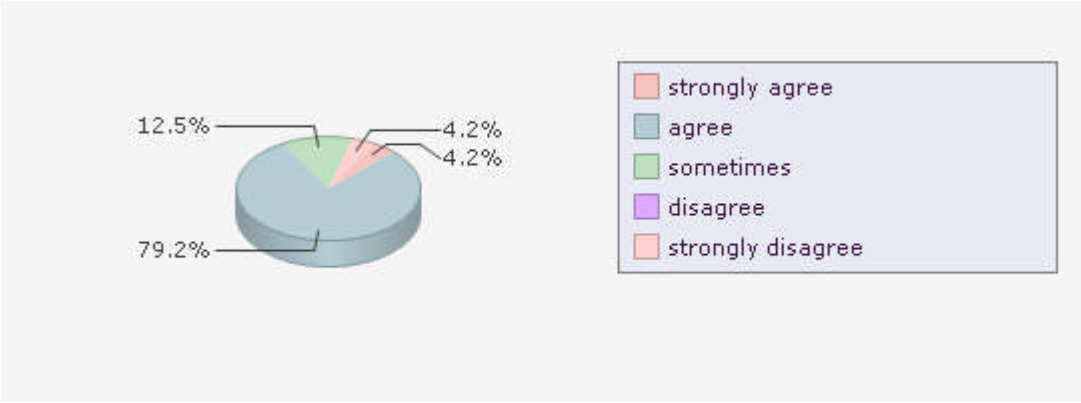
Mean	2.2
Standard Deviation	0.7

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



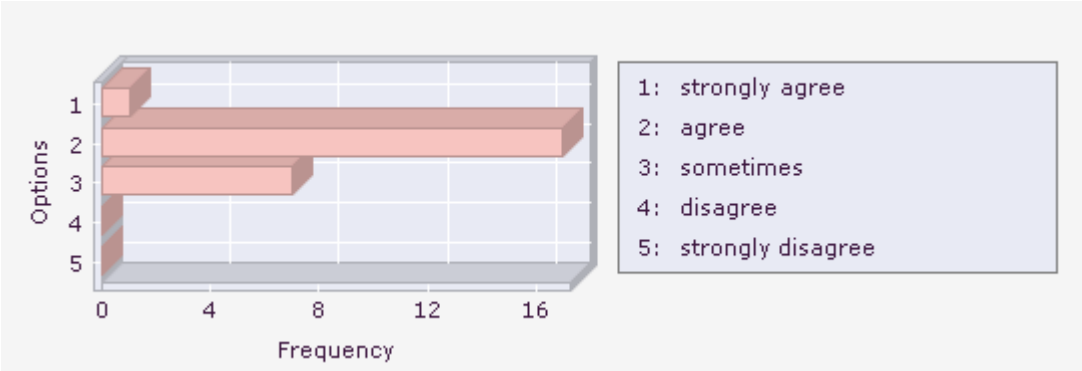
Computed Tomography

Q64. Graduates are capable of implementing a range of post processing programs with little or no supervision

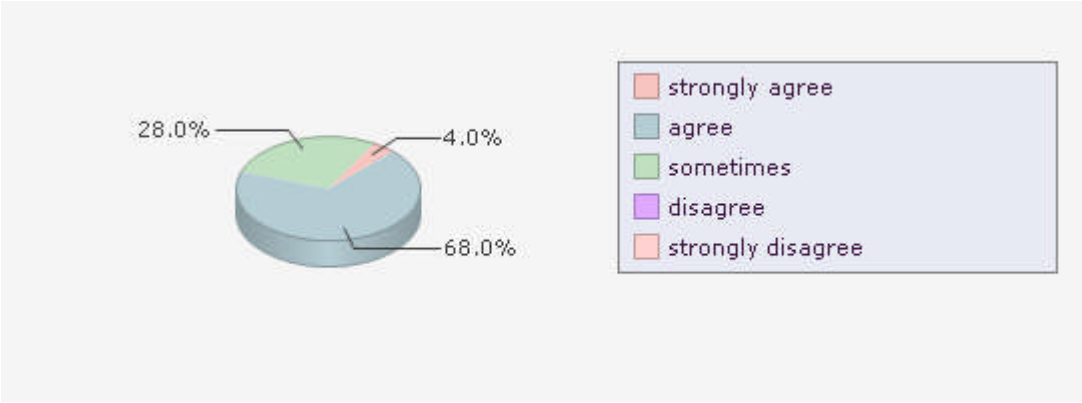
Respondent Group	Staff	
Option	f	%
strongly agree	1	4.0
agree	17	68.0
sometimes	7	28.0
disagree	0	0.0
strongly disagree	0	0.0
Total	25	
Mean	2.2	
Standard Deviation	0.5	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



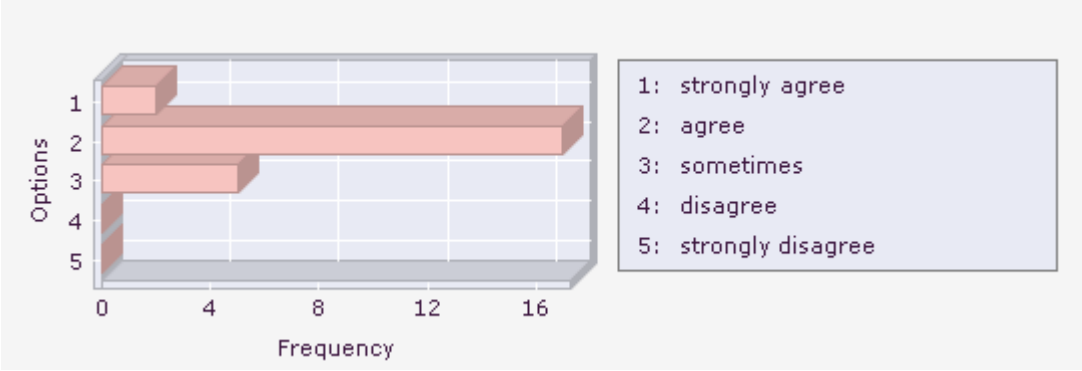
Computed Tomography

Q65. Graduates can evaluate the resultant images to ensure adequacy of the examination in terms of answering the clinical question with little or no supervision

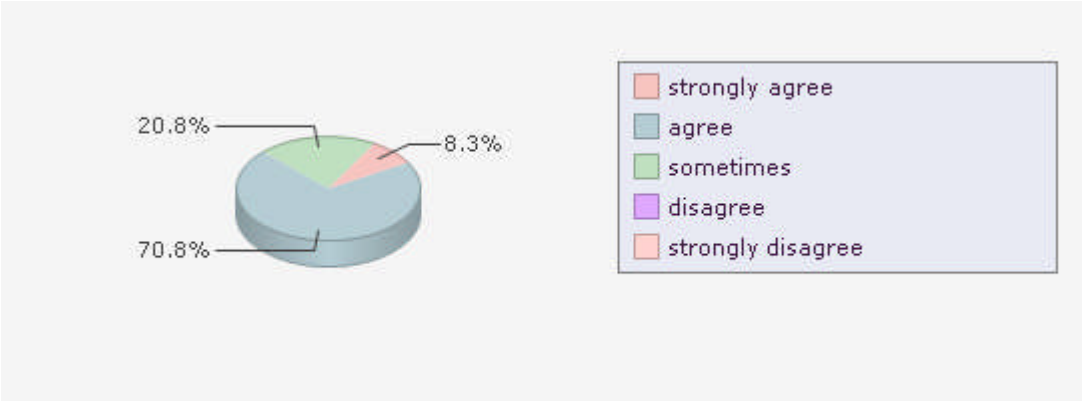
Respondent Group	Staff	
Option	f	%
strongly agree	2	8.3
agree	17	70.8
sometimes	5	20.8
disagree	0	0.0
strongly disagree	0	0.0
Total	24	
Mean	2.1	
Standard Deviation	0.5	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



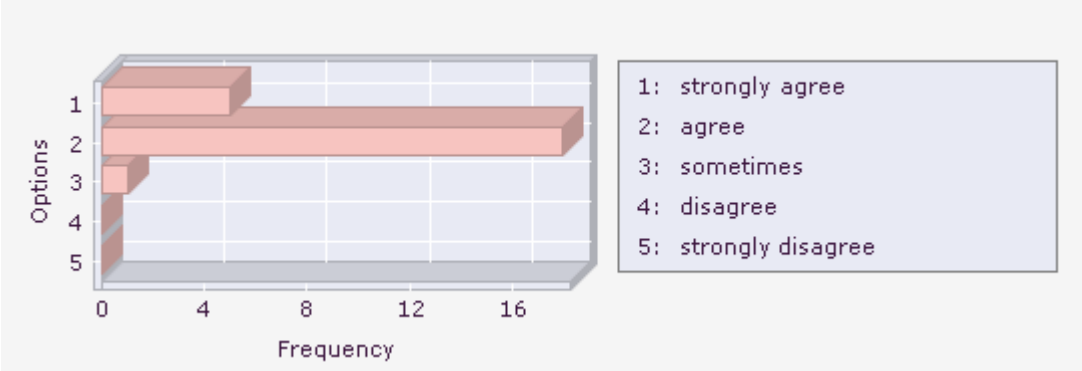
Computed Tomography

Q66. Graduates are capable of providing patient care support during the actual CT examination with little or no supervision

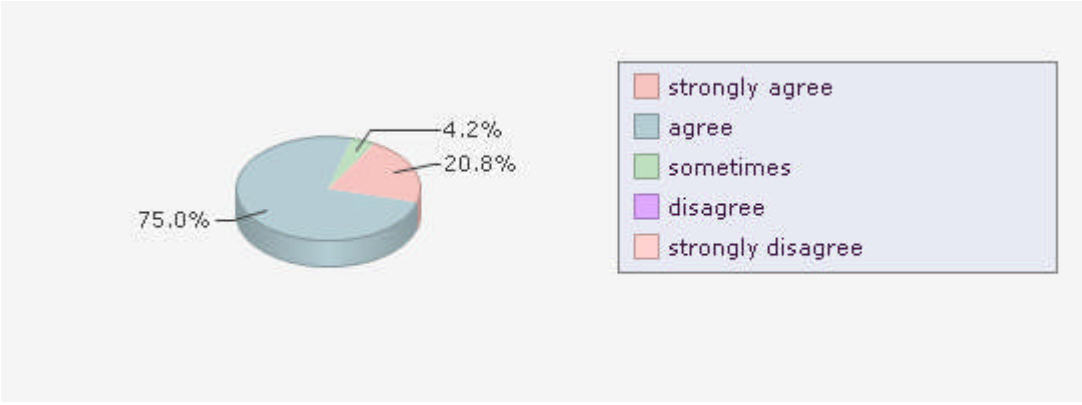
Respondent Group	Staff	
Option	f	%
strongly agree	5	20.8
agree	18	75.0
sometimes	1	4.2
disagree	0	0.0
strongly disagree	0	0.0
Total	24	
Mean	1.8	
Standard Deviation	0.5	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



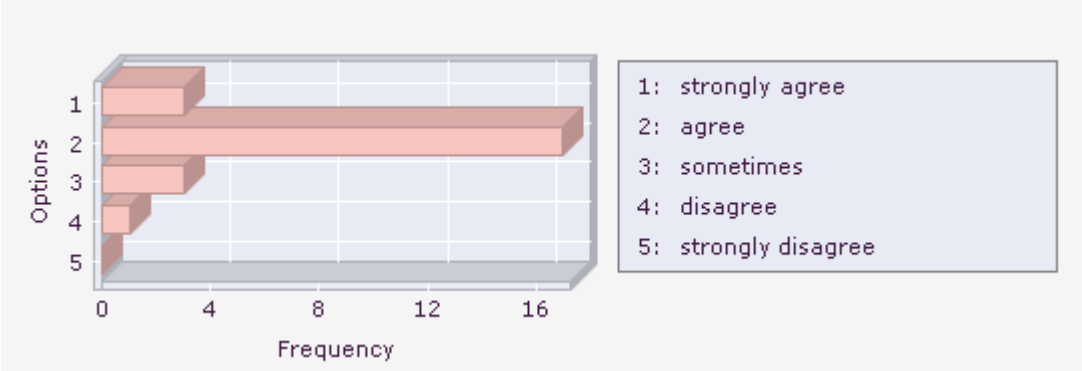
Computed Tomography

Q67. Graduates can provide patients with appropriate information concerning pre and post examination preparation protocols associated with a variety of CT examinations with little or no supervision

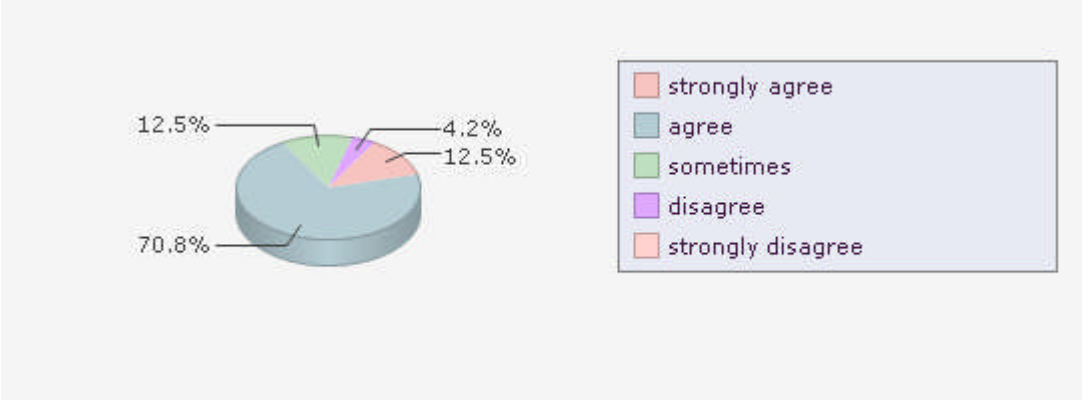
Respondent Group	Staff	
Option	f	%
strongly agree	3	12.5
agree	17	70.8
sometimes	3	12.5
disagree	1	4.2
strongly disagree	0	0.0
Total	24	
Mean	2.1	
Standard Deviation	0.7	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



Ultrasound

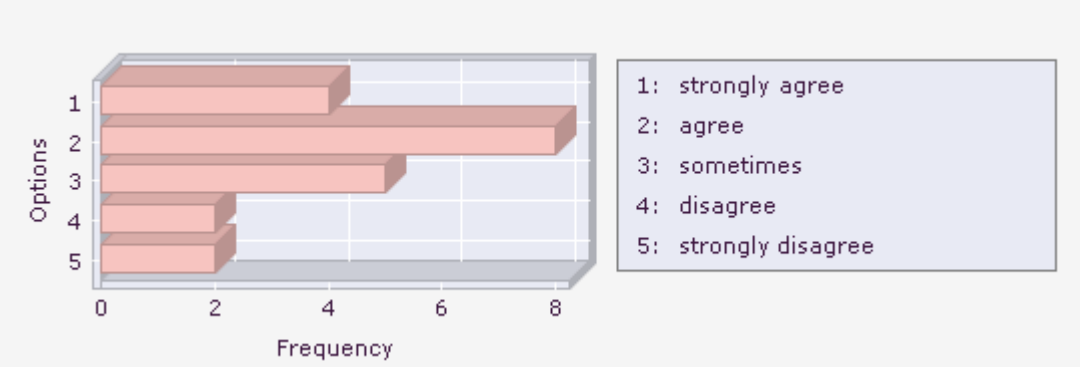
Q68. Graduates display the potential to examine cooperative adults for a standard abdominal ultrasound examination with little or no supervision

Respondent Group	Staff	
Option	f	%
strongly agree	4	19.0
agree	8	38.1
sometimes	5	23.8
disagree	2	9.5
strongly disagree	2	9.5
Total	21	

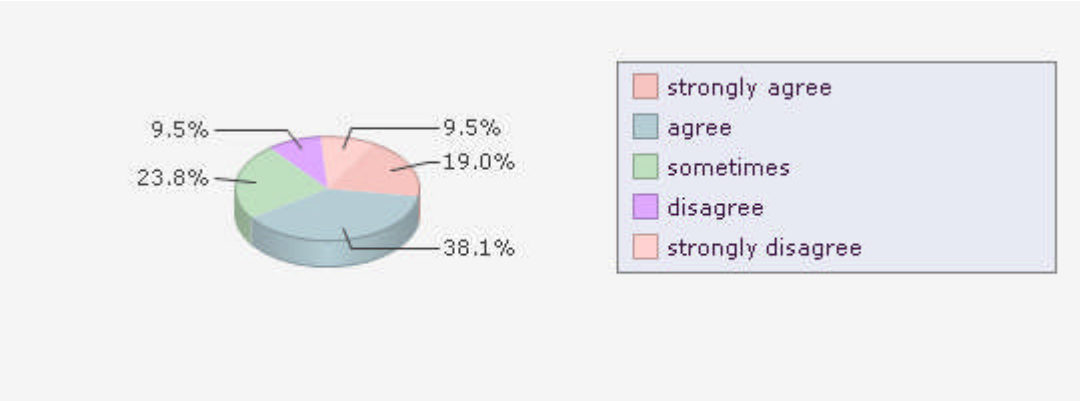
Mean	2.5
Standard Deviation	1.2

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



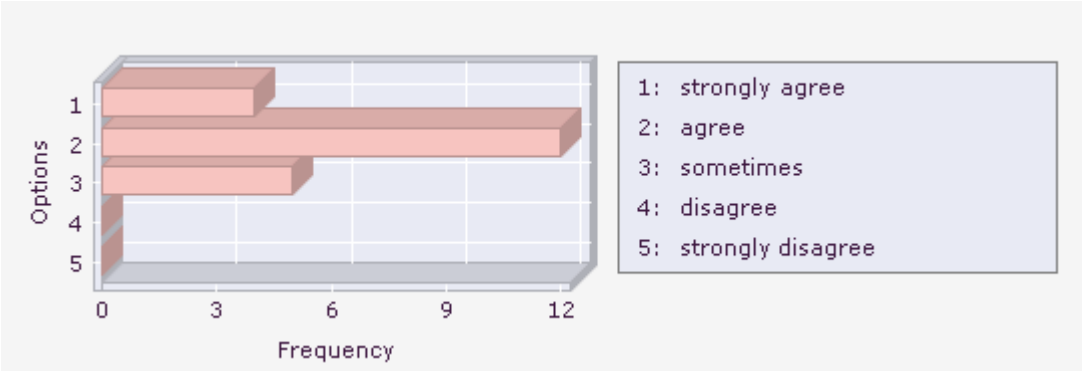
Ultrasound

Q69. Graduates are capable of providing patient care support during sonographic examinations

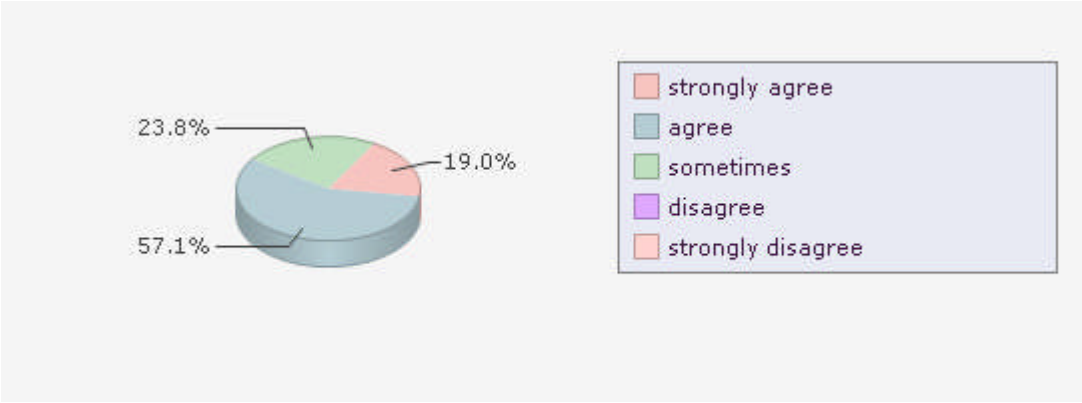
Respondent Group	Staff	
Option	f	%
strongly agree	4	19.0
agree	12	57.1
sometimes	5	23.8
disagree	0	0.0
strongly disagree	0	0.0
Total	21	
Mean	2.0	
Standard Deviation	0.7	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



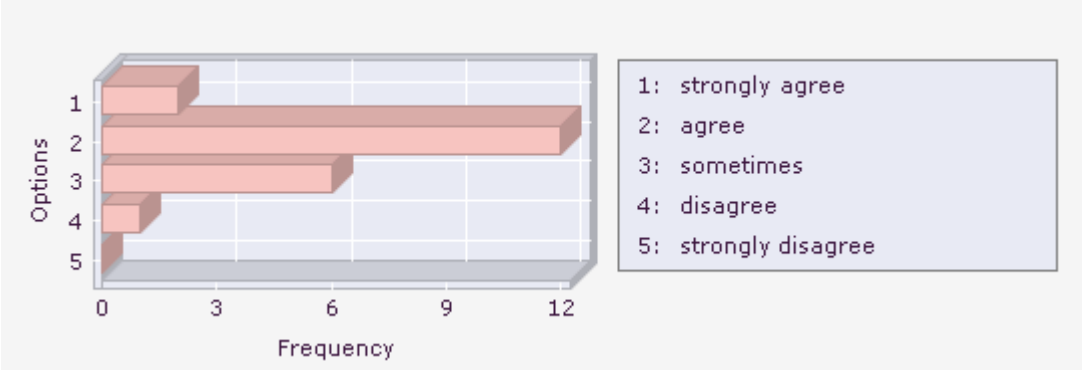
Ultrasound

Q70. Graduates can provide patients with appropriate information concerning pre and post examination preparation protocols associated with a variety of ultrasound examinations

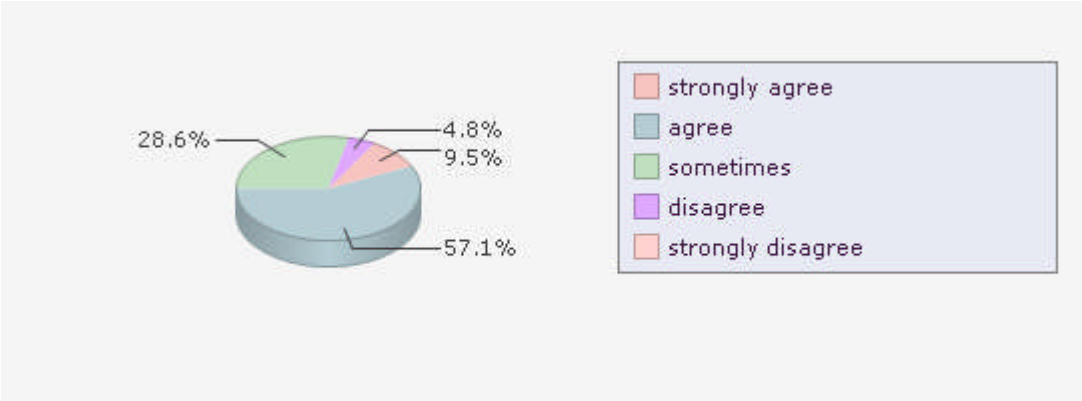
Respondent Group	Staff	
Option	f	%
strongly agree	2	9.5
agree	12	57.1
sometimes	6	28.6
disagree	1	4.8
strongly disagree	0	0.0
Total	21	
Mean	2.3	
Standard Deviation	0.7	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



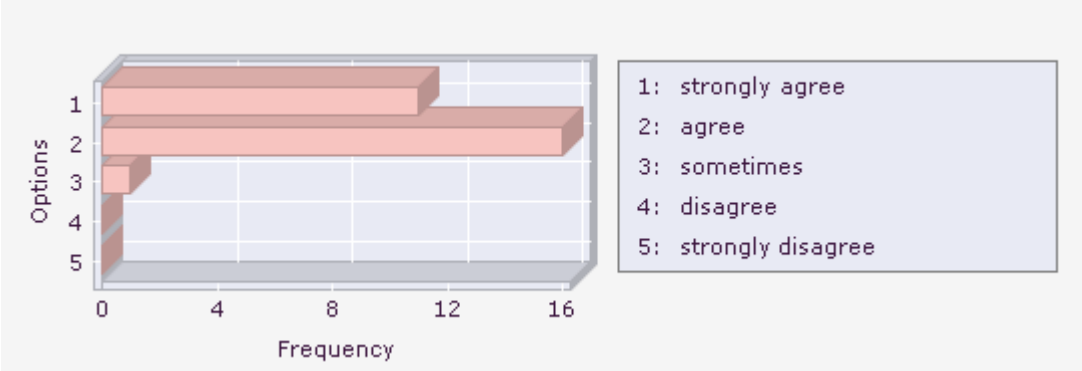
SECTION 5: Overall

Q71. Overall, I am satisfied with the quality of graduates from the Bachelor of Radiography and Medical Imaging, Monash University

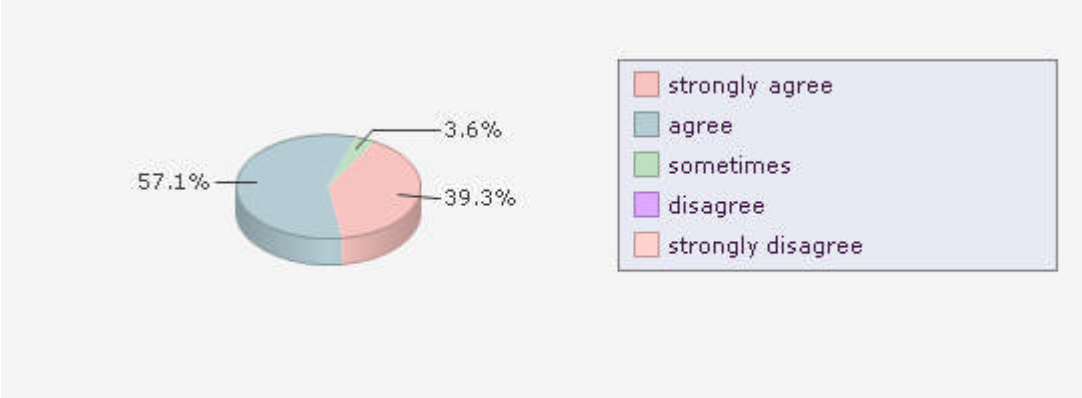
Respondent Group	Staff	
Option	f	%
strongly agree	11	39.3
agree	16	57.1
sometimes	1	3.6
disagree	0	0.0
strongly disagree	0	0.0
Total	28	
Mean	1.6	
Standard Deviation	0.6	

Mean: 1 = strongly agree, 5 = strongly disagree

Respondent Group: Staff



Respondent Group: Staff



2011 BRadMedImag Employer Satisfaction Survey: Results

Introduction

In preparation for the re-accreditation of the BRadMedImag initially scheduled for mid 2011 (later amended to the first quarter of 2012) a decision was made by the Course Convenor to survey the clinical practices and hospital departments within Victoria associated with the course. The survey essentially replicated an earlier survey conducted in 2006 for the same purpose namely to ascertain the extent to which the degree prepared students to assume roles as radiographers upon graduation.

Purpose of the Survey

The Bachelor of Radiography and Medical Imaging (BRadMedImag) has been offered by Monash University since 1998. In April 2001 the course was accredited by the Professional Accreditation and Education Board (PAEB) of the Australian Institute of Radiography (AIR) for a period of five years. In October 2006, the course was reaccredited for a further five years by the PAEB. In 2010 the PAEB invited the course team to apply for another five year period of re-accreditation. Thus the survey set out to gather objective feedback from employer groups concerning the quality of the graduates from the BRadMedImag. More particularly, the survey sought to ascertain the extent to which employer groups are satisfied that upon graduation from the course, students fulfil the expectations of an accredited radiographer as articulated by the AIR.

The Profession's Expectations of an Accredited Radiographer

From the time of its inception in 1996 to its implementation in February 1998, the BRadMedImag has complied with the AIR *Education Policy* and the *Competency Based Standards for Radiography* approved and promulgated by the profession in 1992. In 2004 the AIR revised its *Educational Policies* and in 2005 produced a revised CBS document *Competency Based Standards for the Accredited Practitioner.* From the perspective of the AIR, radiography is the professional practice of providing a range of diagnostic imaging examinations and therapeutic procedures using ionising and non-ionising radiation. This may be done:

- to create an image to confirm or exclude a clinical diagnosis,
- to assist, monitor and manage treatment processes,
- for screening programs and,
- for research. *(AIR, 2005, p9).*

The AIR believes radiographers to be

> health care professionals who provided and interpret a range of medical imaging examinations for diagnosis and management of medical conditions. Radiographers are responsible for optimising diagnostic quality whilst maintaining radiation safety. *(AIR, 2005, p9).*

Of particular relevance to this survey is the profession's articulation of the scope of practice (SOP) of the radiographer (Accredited Practitioner level) within the revised 2005 CBS document which encompasses:

- Patient and clinical assessment
- Application of the science of medical imaging to include
    - general radiography incorporating plain film and digital imaging
    - fluoroscopy
    - operating theatre imaging
    - emergency imaging and,
    - computed tomography
- Image processing and data recording
- Quality management and diagnostic efficacy

- Image interpretation
- Mentoring, clinical reasoning and research *(AIR, 2005, p9)*

There is no expectation by the AIR that the accredited practitioner " specifically possess the advanced/specialist competency level to practice independently in the following

- MRI
- Mammography
- Advanced applications in CT scanning
- Ultrasound
- Interventional imaging and advanced angiographic applications
- Information Systems Administration" *(AIR, 2005, p9)*

Rather, the AIR is of the view that these procedures constitute advanced or specialist radiographic practice.

The AIR Competency Based Standards (CBS)

Given the purpose of the exercise, the survey was structured around the profession's CBS because they represent the expectations the AIR has for graduates who either successfully complete a professional development year (PDY) or complete an AIR accredited course not requiring a PDY[1] which is the case for the BRadMedImag. However the structure of the CBS in terms of standards and outcomes is such that it would lead to the creation of a survey comprising in excess of 70 items without necessarily providing information that is useful for the accrediting team. Thus this survey asked respondents to make a judgement as to the extent to which graduates from the BRadMedImag meet the descriptions provided for each of the following standards.

Standard 1: Knowledge and Understanding
Standard 2: Critical Thinking and Evaluation
Standard 3: Professional and Ethical Practice
Standard 4: Care and Clinical Management
Standard 5: Lifelong Learning

The survey concluded with a request for respondents to make a judgement as to the extent to which graduates from the BRadMedImag meet the course objectives and the broader graduate attributes defined by the University.

[1] The PDY became the National Professional Development Programme in 2010.

Method

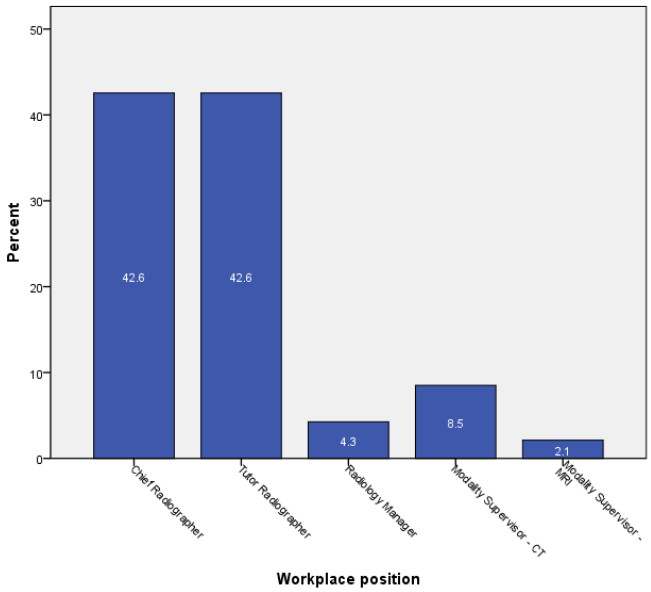
The survey was created using the previous 2006 survey as a template by the Course Convenor. The Strategic Analysis & Surveys division of the Monash University Statistics, Office of Planning & Quality was engaged by the Course Convenor to organise for the survey to be accessible electronically via a URL which was https://my.monash.edu.au/external/survey/b158a56b/

In 2011 there were 65 clinical sites offering clinical placements within the BRadMedImag. In the case of the teaching hospitals and large private hospitals an invitation was extended to the Chief Radiographer and the designated tutor of supervisor radiographer of each site. In the case of most of the private radiology practices, the single contact person whose name is on the Department's clinical data base was sent the invitation. The total number of personnel contacted by email was 86. **The number of respondents was 47**. The only drawback of the survey was its anonymity. This meant that it was not possible to be absolutely certain how many respondents replied from the same clinical site. The results section follows.

Survey Results

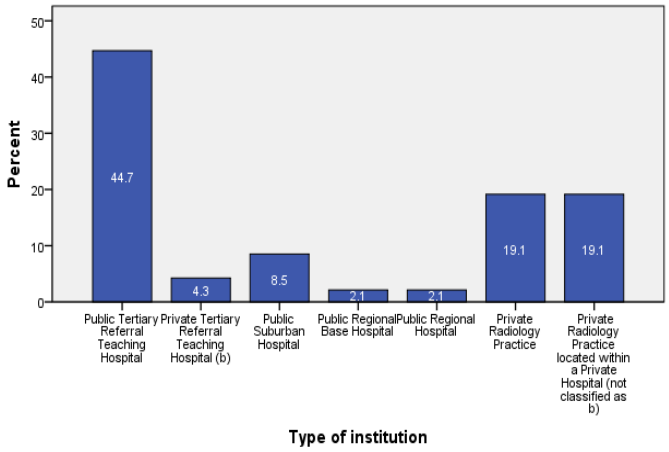
PART A: DEMOGRAPHICS

The respondents were asked to categorise themselves

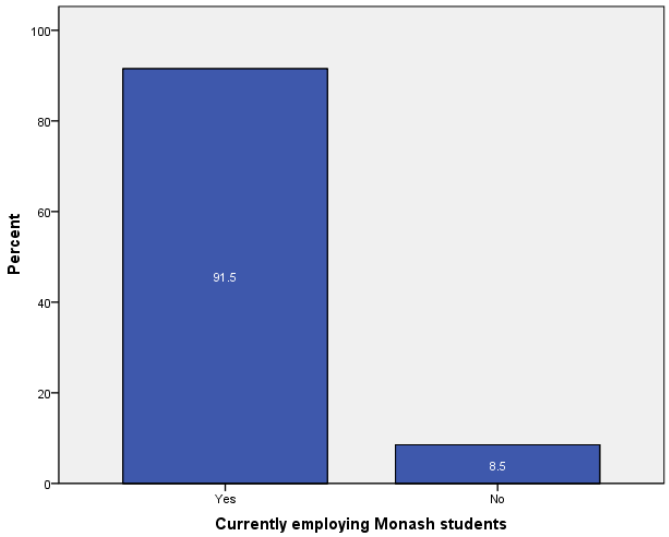


2. Type of institution: Please categorise your institution

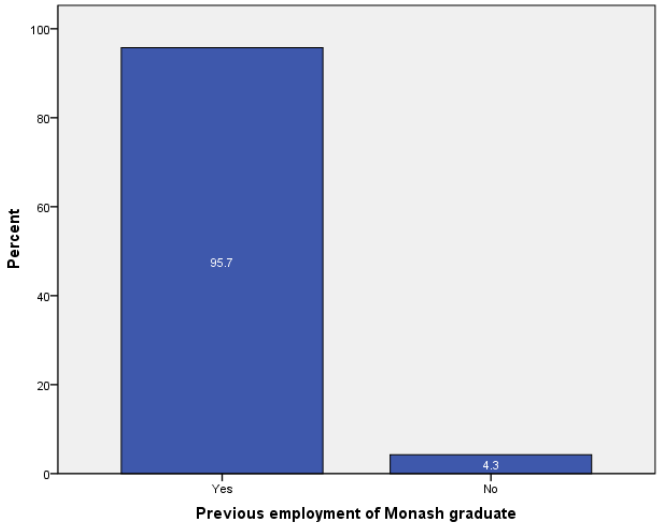
a) Public Tertiary Referral Teaching Hospital
b) Private Tertiary Referral Teaching Hospital
c) Public Suburban Hospital
d) Public Regional Base Hospital
e) Public Regional Hospital
f) Private Radiology Practice
g) Private Radiology Practice located within a Private Hospital (not classified as b)



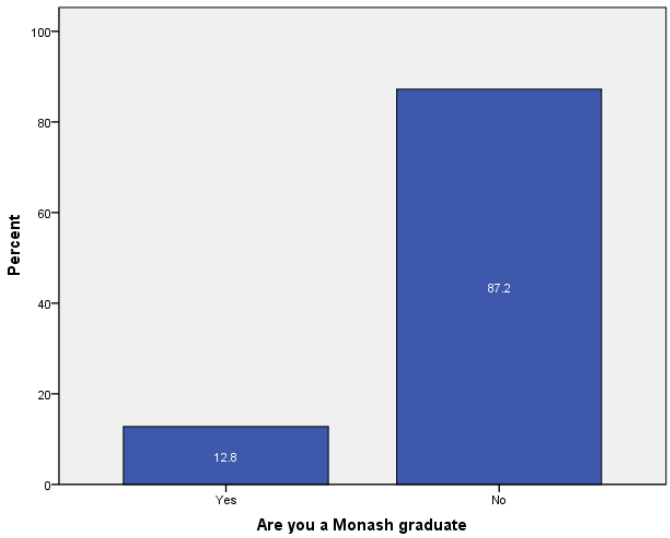
3. Do you currently employ a Monash graduate?



4. Have you employed a Monash graduate in the past?



5. Are you a Monash graduate?

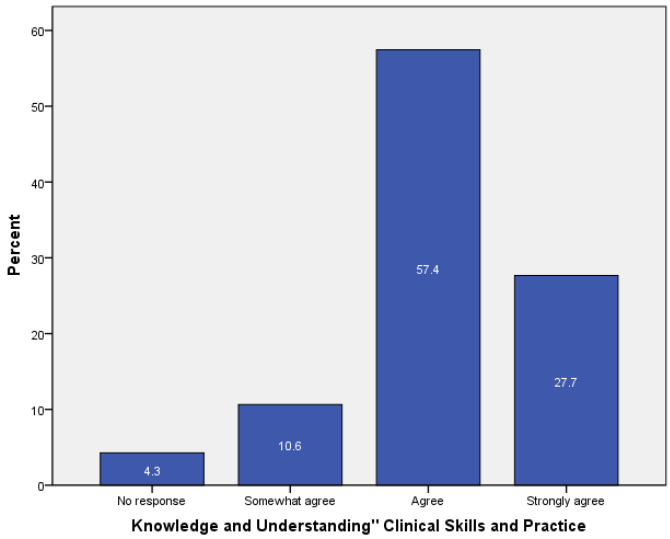


PART B: CBS STANDARDS' DESCRIPTORS

Please use your professional judgement to ascertain the extent to which you believe Monash graduates demonstrate compliance with the following descriptors by indicating your response using the five point scale

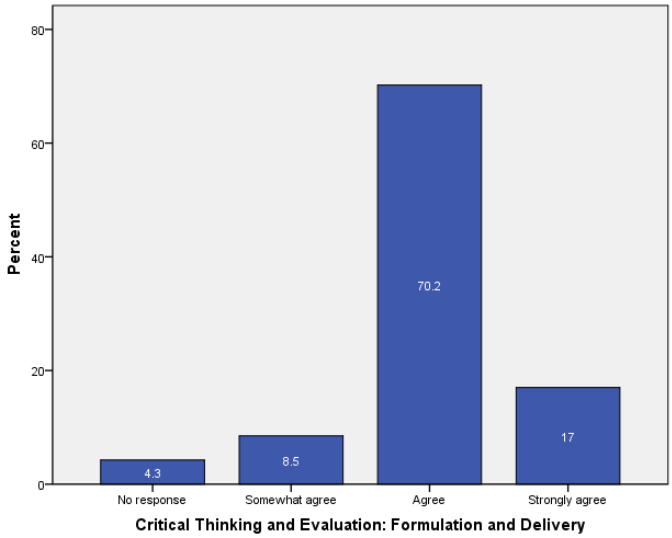
Standard 1: Knowledge and Understanding

CLINICAL SKILLS AND PRACTICE - Monash graduates demonstrate a broad and thorough knowledge of the SOP underpinning radiography.

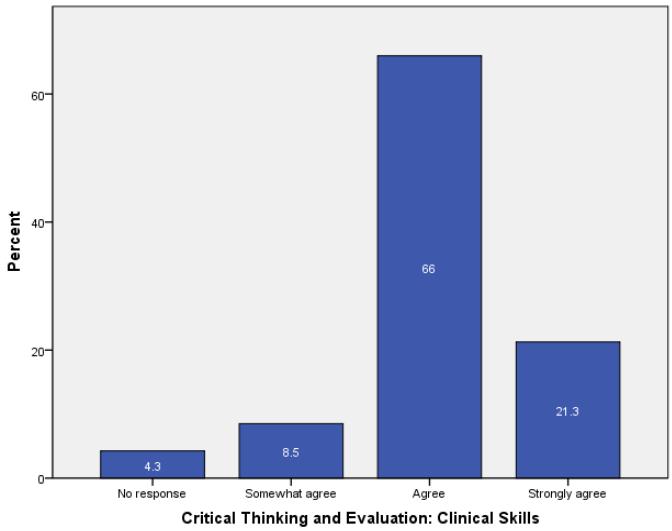


Standard 2: Critical Thinking and Evaluation

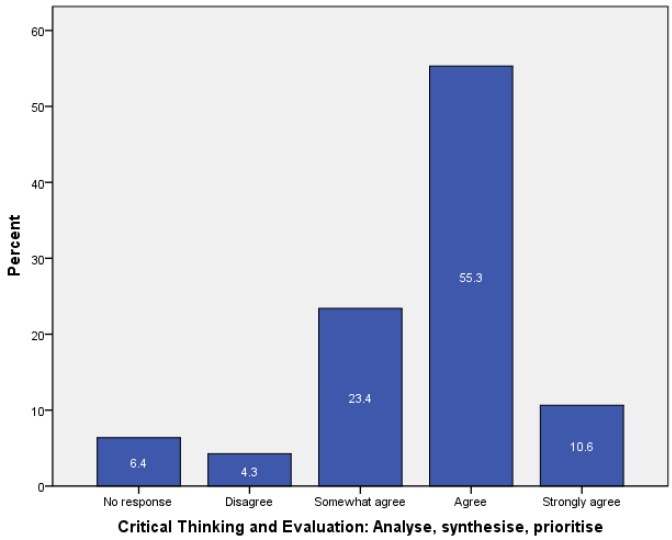
1. FORMULATION AND DELIVERY - Monash graduates assess clinical situations, determine the key issues and deliver a timely and quality outcome



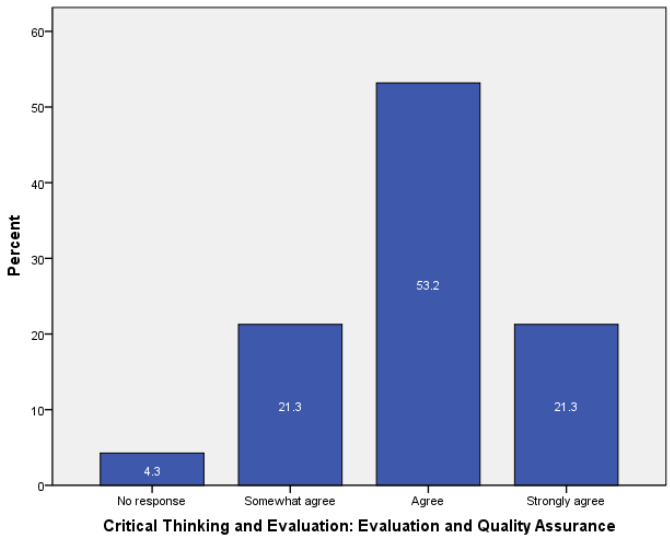
2. CLINICAL SKILLS – Monash graduates analyse and respond to problems related to patient treatment and care



3. ANALYSE, SYNTHESISE, PRIORITISE - Monash graduates analyse and respond to problems of operation and management

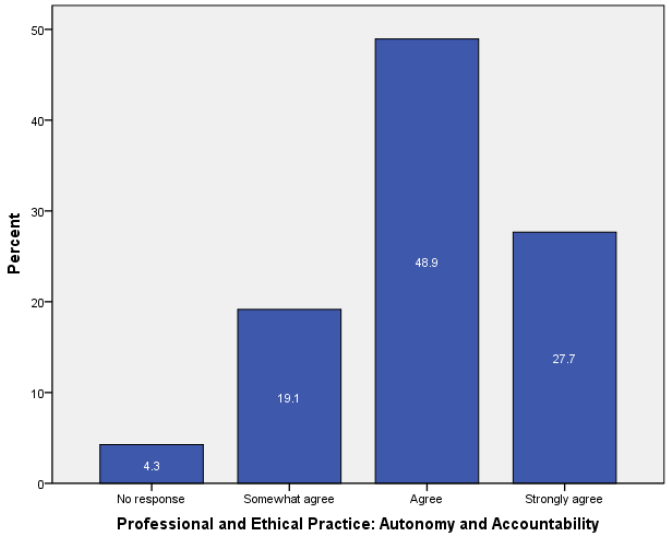


5. EVALUATION AND QUALITY ASSURANCE – Monash graduates evaluate and implement processes and procedures for ensuring quality outcomes

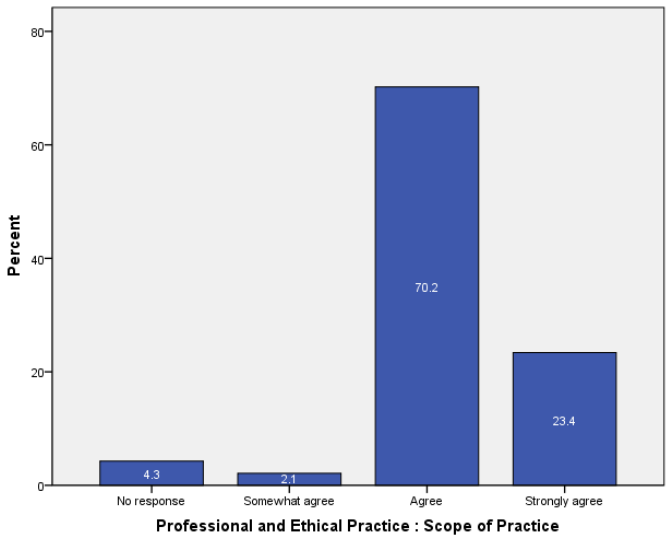


Standard 3: Professional and Ethical Practice

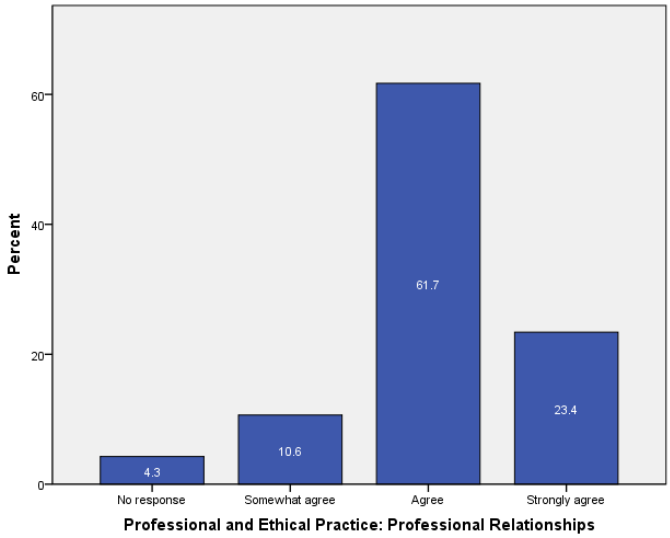
1. AUTONOMY AND ACCOUNTABILITY – Monash graduates operate effectively as autonomous and responsible practitioners



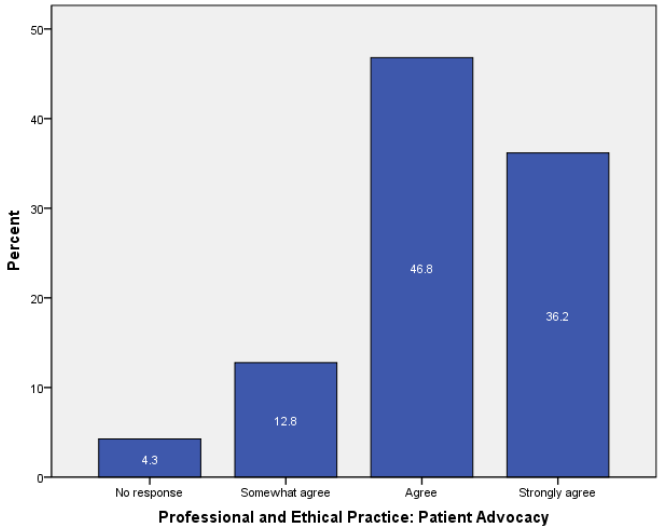
2. SCOPE OF PRACTICE - Monash graduates are guided in action by their own and others' Scope of Practice



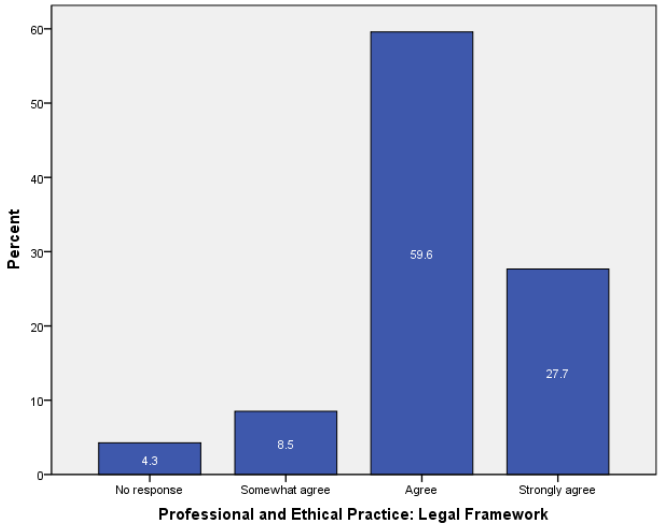
3. PROFESSIONAL RELATIONSHIPS – Monash graduates establish and maintain appropriate collaborative relationships with colleagues and members of the multidisciplinary team



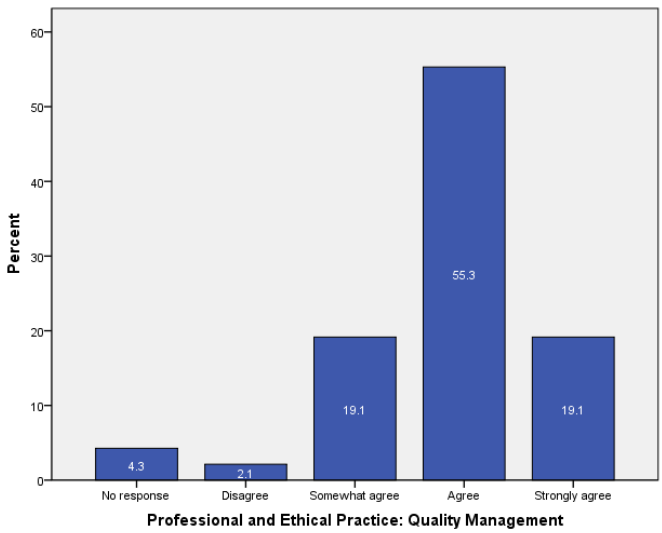
4. PATIENT ADVOCACY - Monash graduates act to ensure that patient welfare and rights are appropriately respected



5. LEGAL FRAMEWORK - Monash graduates act to preserve the safety of individuals and groups at all times

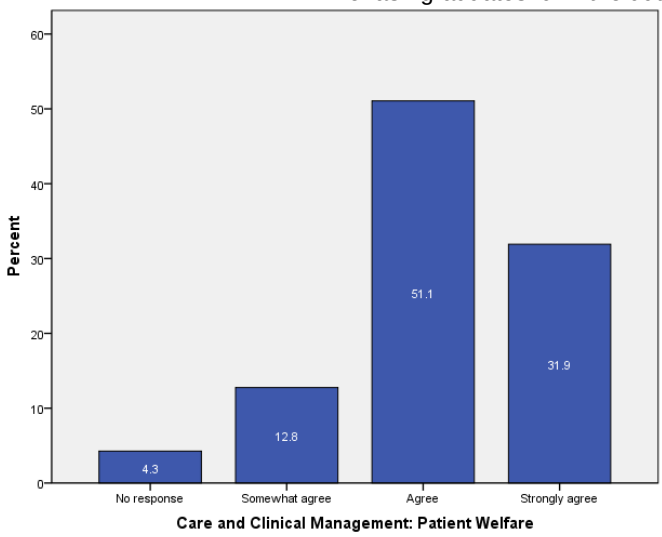


6. QUALITY MANAGEMENT - Monash graduates are capable of the management of quality issues relating to effective practice

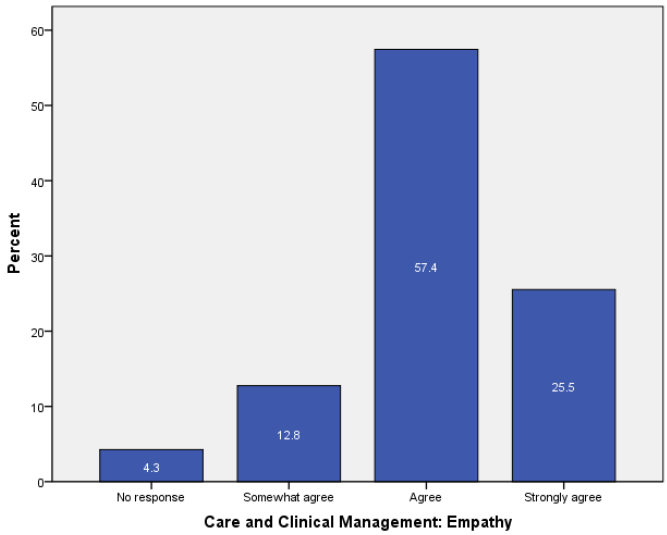


Standard 4: Care and Clinical Management

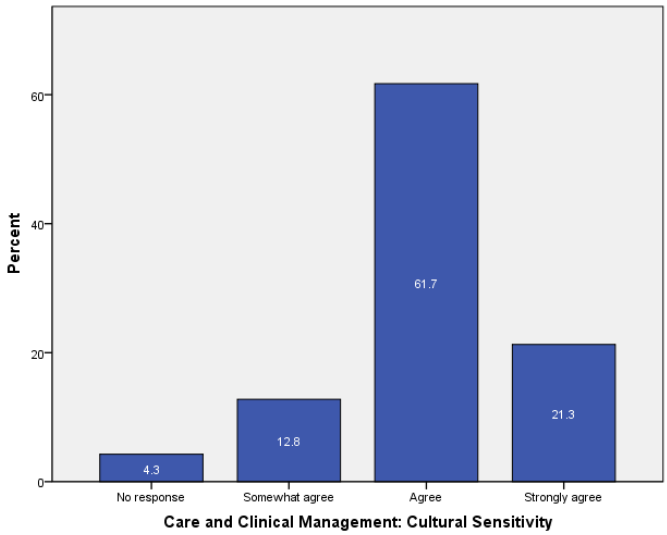
1. PATIENT WELFARE – Monash graduates fulfill the duty of care in clinical practice



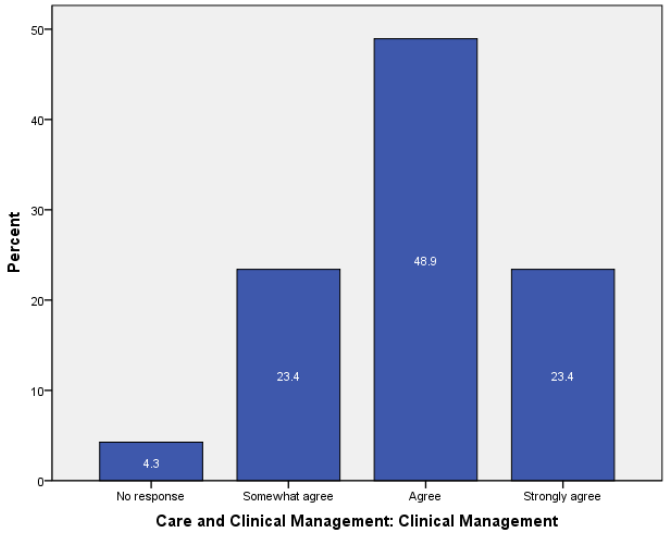
2. EMPATHY - Monash graduates establish and maintain effective interpersonal relationships with patients and others.



3. CULTURAL SENSITIVITY - Monash graduates respond appropriately in culturally sensitive situations

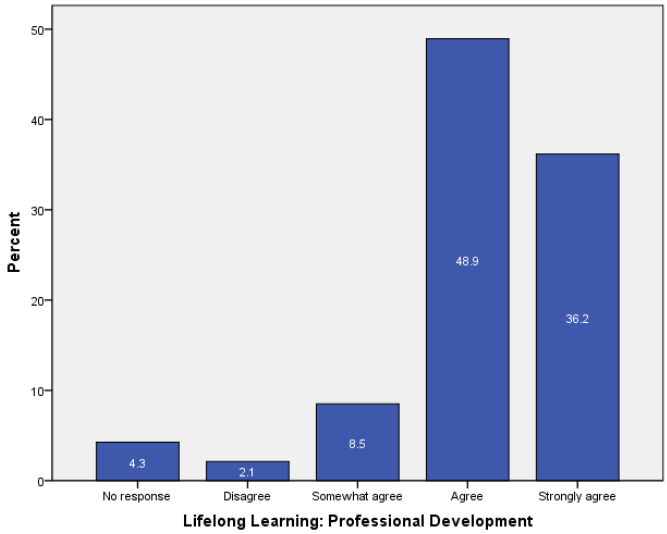


4. CLINICAL MANAGEMENT - Monash graduates demonstrate effective clinical management of individuals

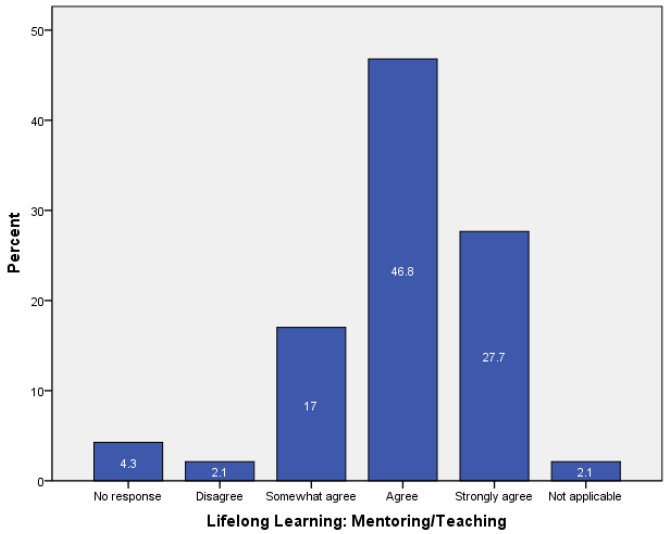


Standard 5: Lifelong Learning

1. PROFESSIONAL DEVELOPMENT – Monash graduates demonstrate commitment to ongoing professional development



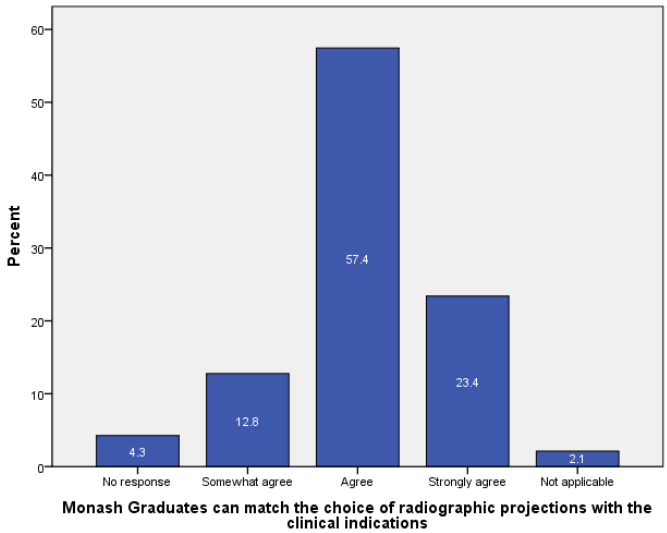
2. MENTORING/TEACHING - Monash graduates play an active role in guiding the learning of others



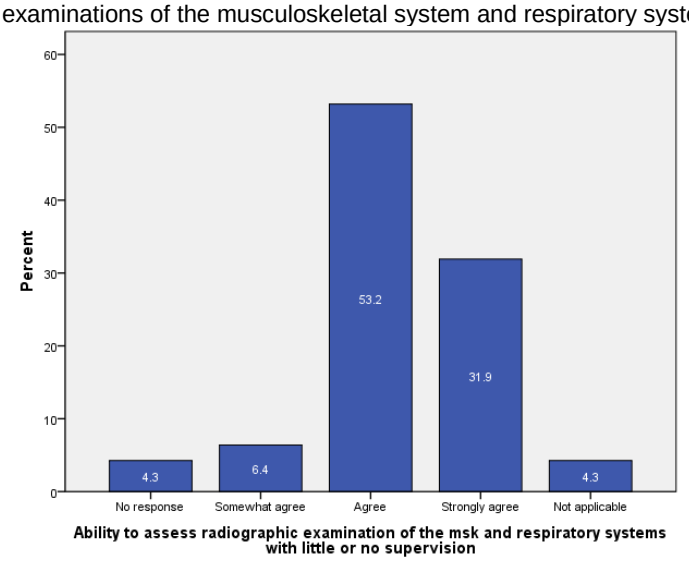
PART C: These questions were intended to provide respondents with an opportunity to provide more specific feedback in regards to the clinical abilities possessed by the graduates.

General Radiography

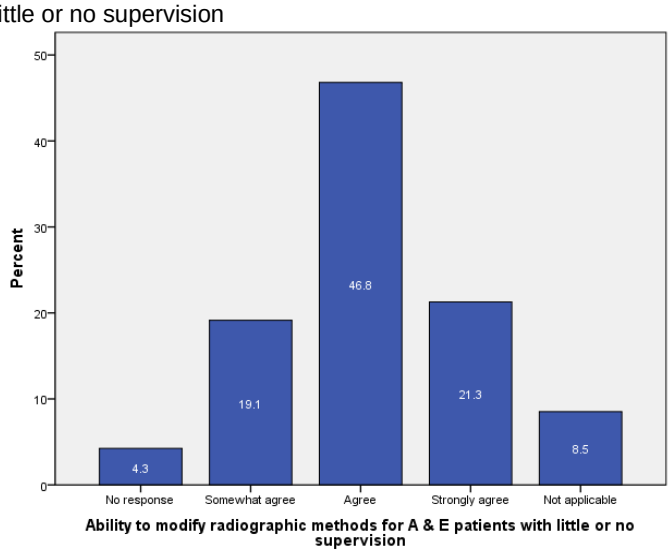
1. Monash graduates can match the choice of radiographic projections with the clinical indications with little or no supervision



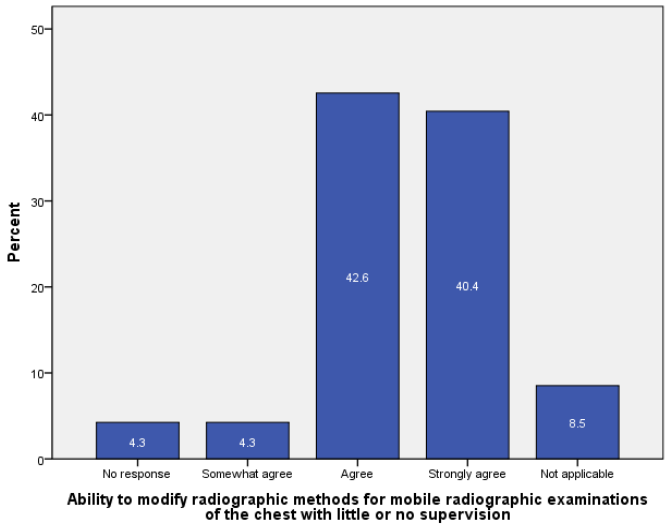
2. Monash graduates are able to examine cooperative adults for a full range of general radiographic examinations of the musculoskeletal system and respiratory systems with little or no supervision



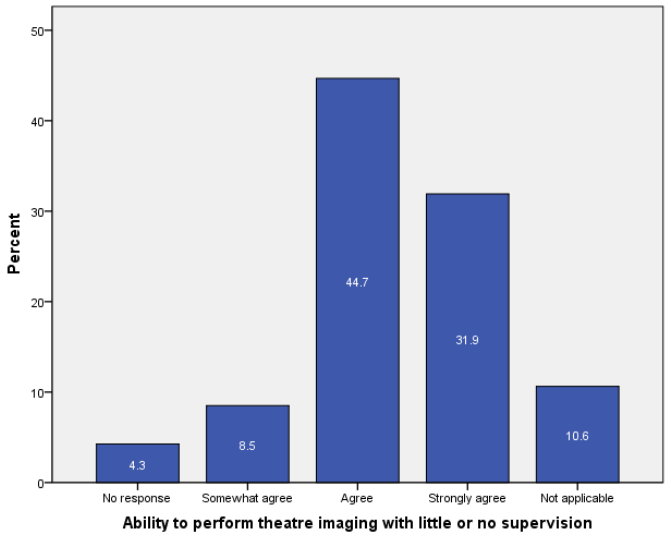
3. Monash graduates are able to modify general radiographic methods for accident and emergency patients with little or no supervision



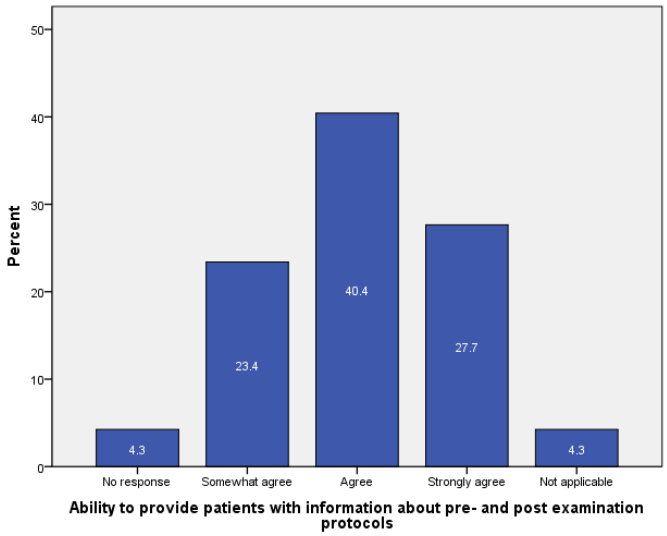
4. Monash graduates are able to perform mobile radiographic examinations of the chest with little or no supervision



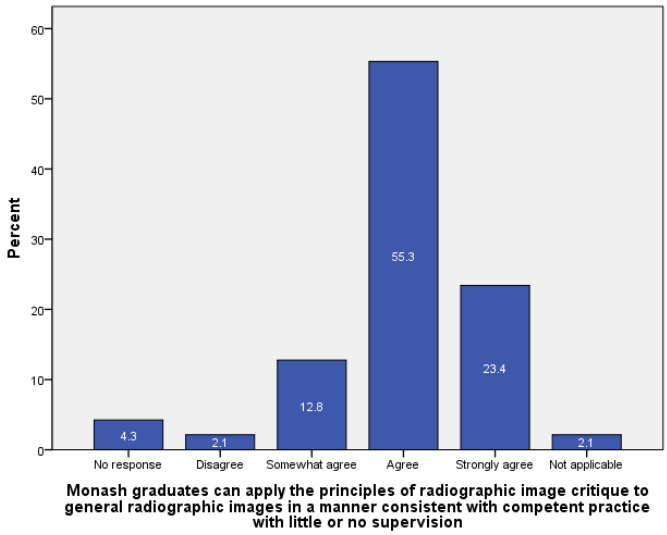
5. Monash graduates are able to perform theatre imaging with little or no supervision



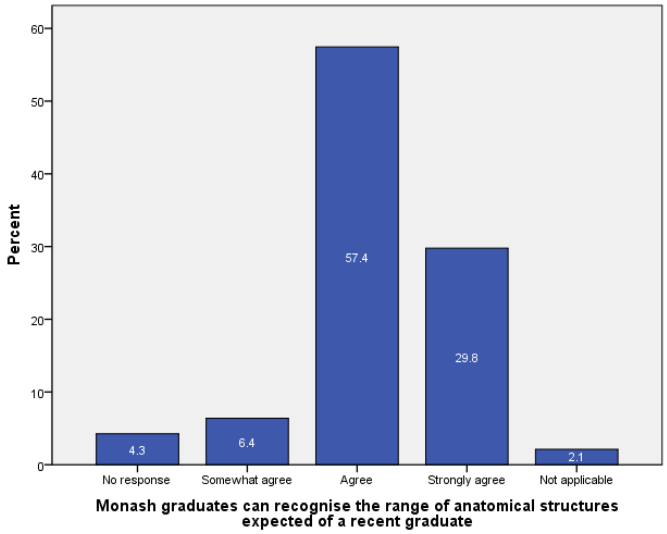
6. Monash graduates are able to provide patients with appropriate and relevant information concerning pre and post preparation examination protocols



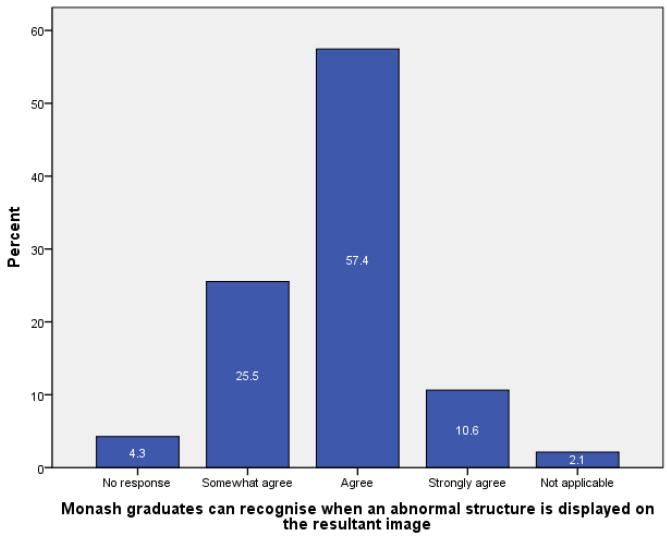
7. Monash graduates can apply the principles of radiographic image critique to general radiographic images in a manner consistent with competent practice with little or no supervision



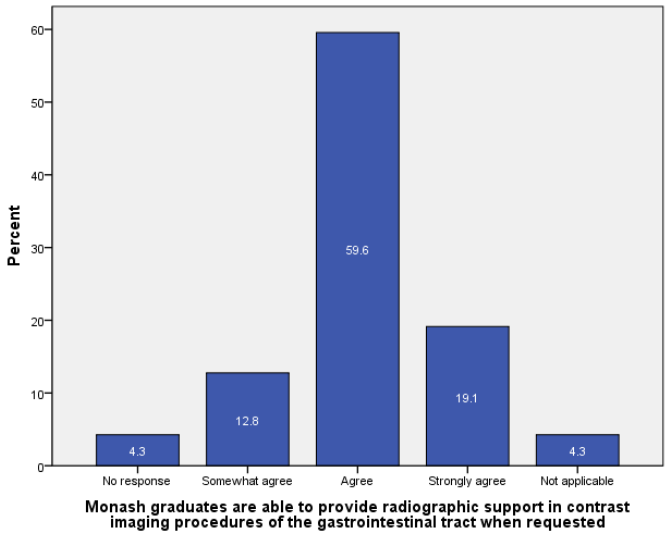
8. Monash graduates can recognise the range of anatomical structures expected of a recent graduate



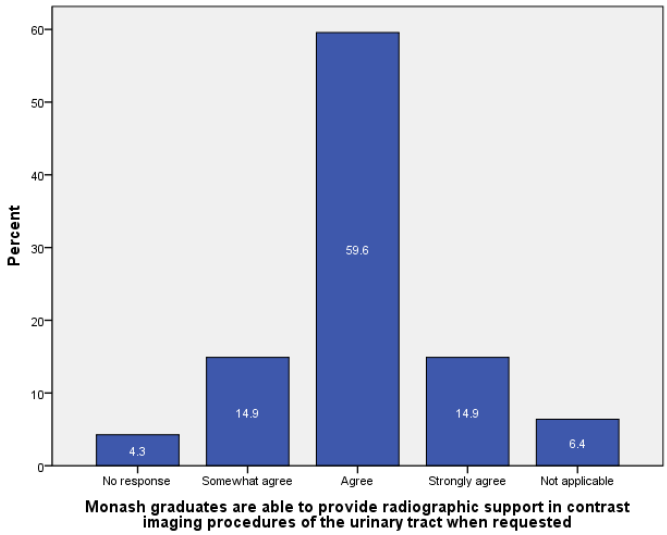
9. Monash graduates can recognise when an abnormal structure is displayed on the resultant image



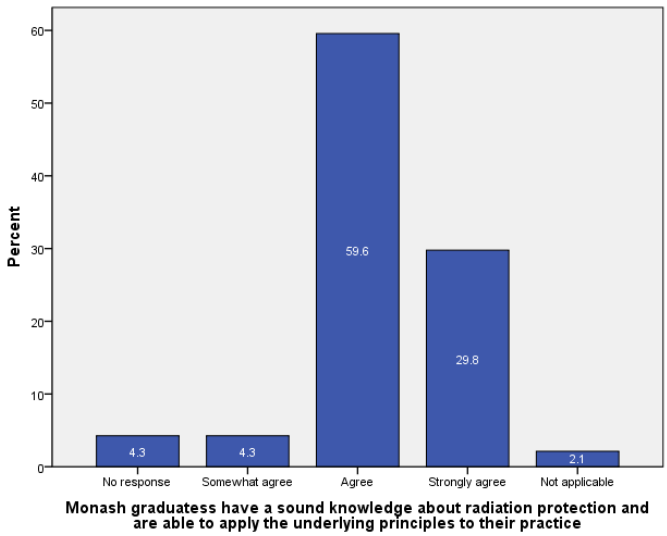
10. Monash graduates are able to provide radiographic support in contrast imaging procedures of the gastrointestinal tract when requested



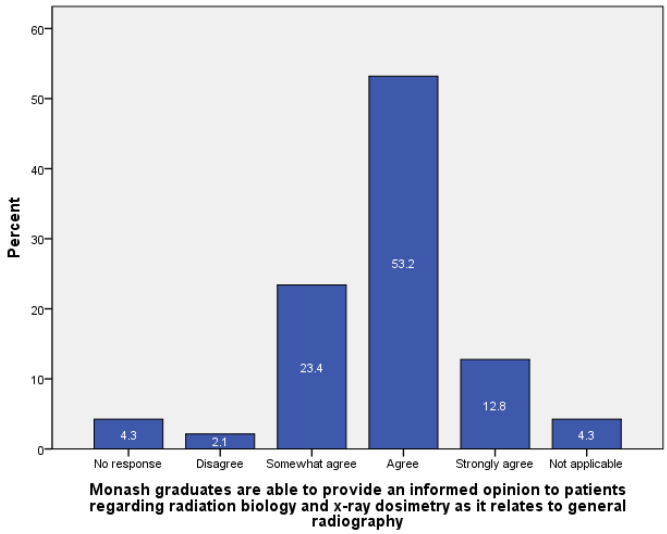
11. Monash graduates are able to provide radiographic support in contrast imaging procedures of the urinary tract when requested



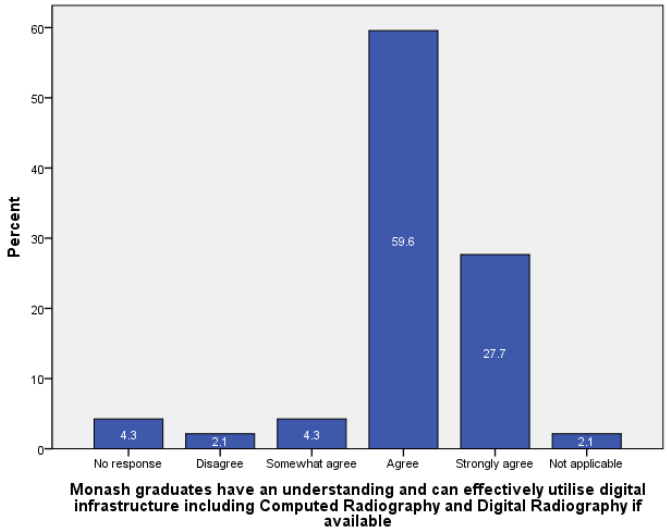
12. Monash graduates have a sound knowledge about radiation protection and are able to apply the underlying principles to their practice



13. Monash graduates are able to provide an informed opinion to patients regarding radiation biology and x-ray dosimetry as it relates to general radiography

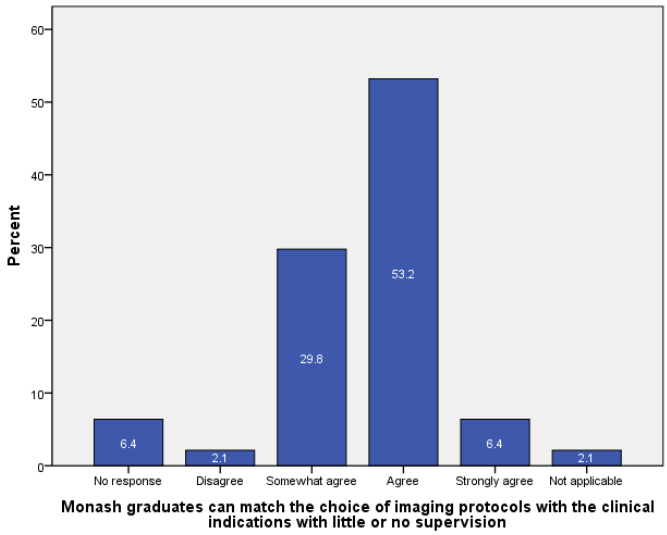


14. Monash graduates have an understanding and can effectively utilise digital infrastructure including Computed Radiography and Digital Radiography if available

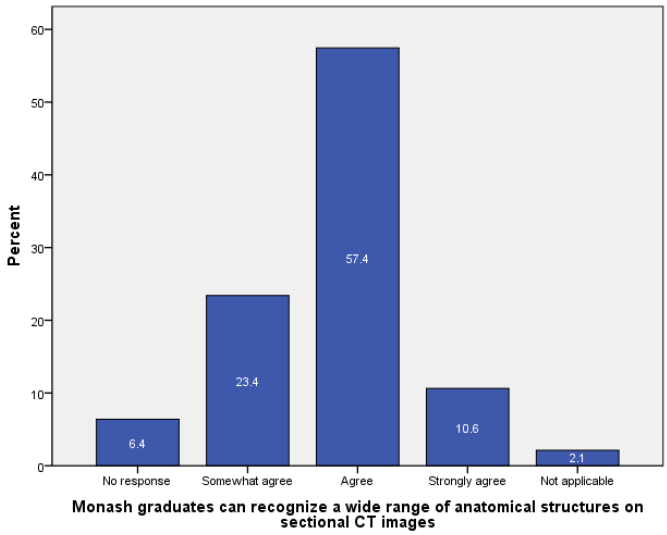


Computed Tomography

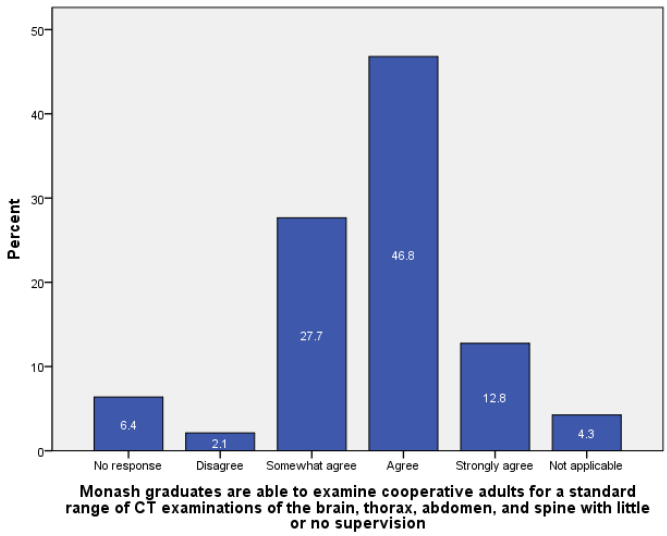
1. Monash graduates can match the choice of imaging protocols with the clinical indications with little or no supervision



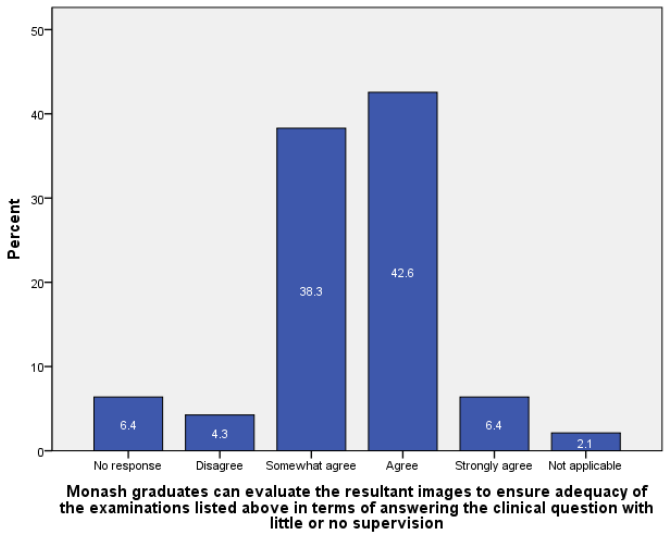
2. Monash graduates can recognize a wide range of anatomical structures on sectional CT images



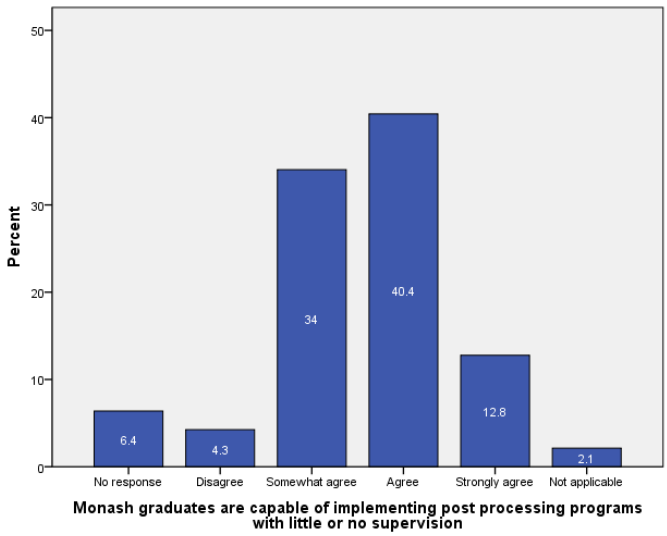
3. Monash graduates are able to examine cooperative adults for a standard range of CT examinations of the brain, thorax, abdomen, and spine with little or no supervision



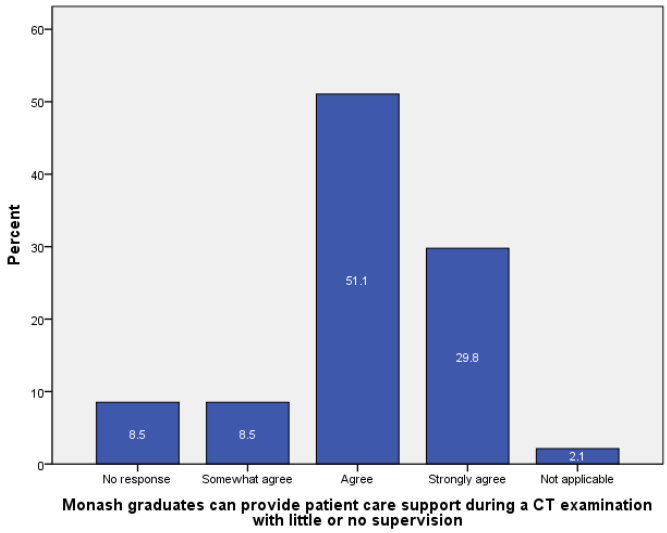
4. Monash graduates can evaluate the resultant images to ensure adequacy of the examinations listed above in terms of answering the clinical question with little or no supervision



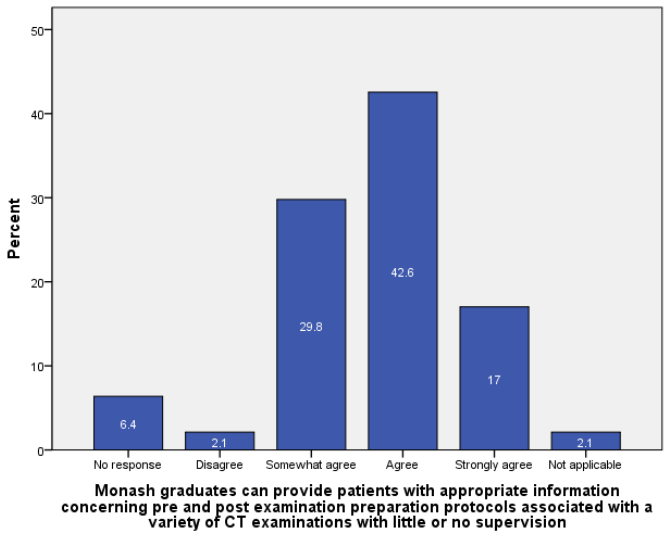
5. Monash graduates are capable of implementing post processing programs with little or no supervision



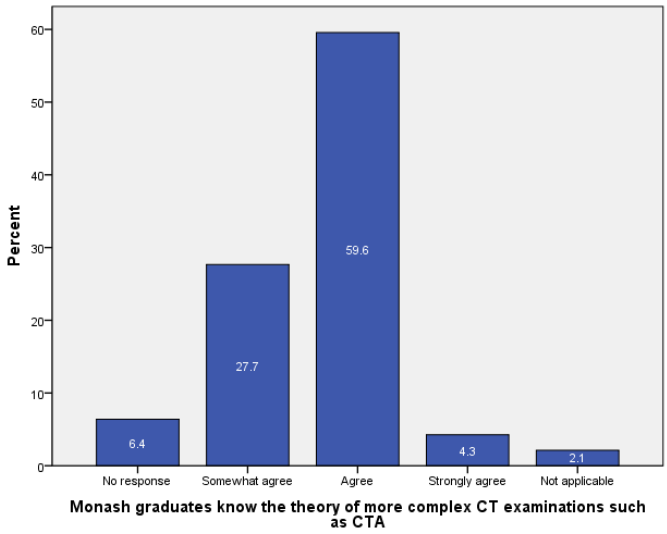
6. Monash graduates can provide patient care support during a CT examination with little or no supervision



7. Monash graduates can provide patients with appropriate information concerning pre and post examination preparation protocols associated with a variety of CT examinations with little or no supervision

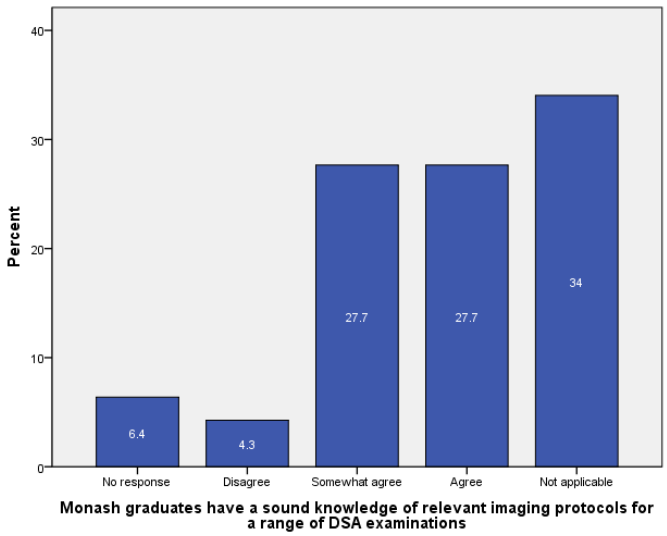


8. Monash graduates know the theory of more complex CT examinations such as CTA

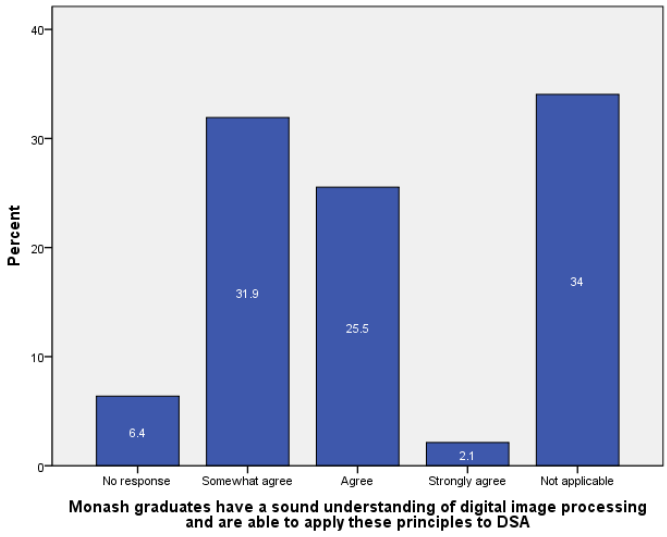


DSA; MRI; US

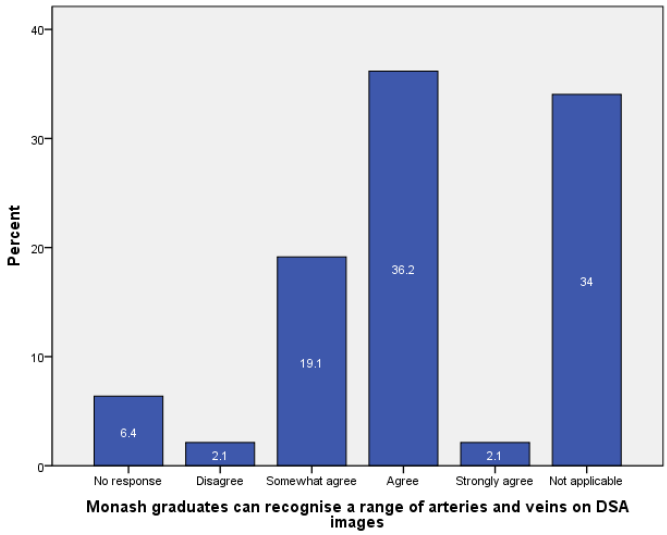
1. Monash graduates have a sound knowledge of relevant imaging protocols for a range of DSA examinations



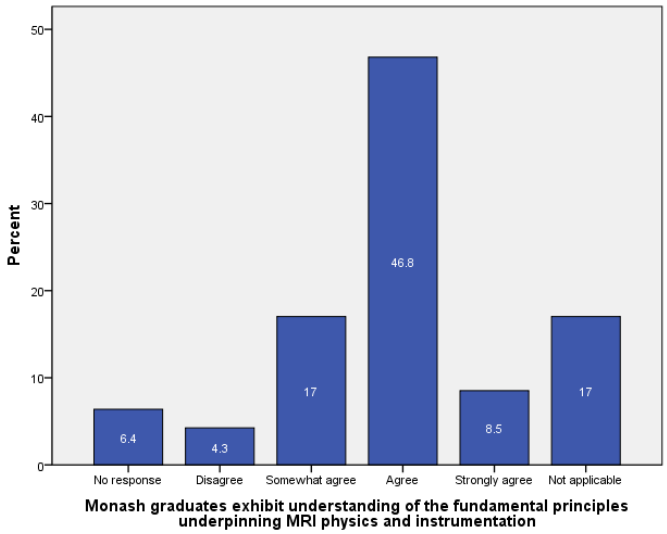
2. Monash graduates have a sound understanding of digital image processing and are able to apply these principles to DSA



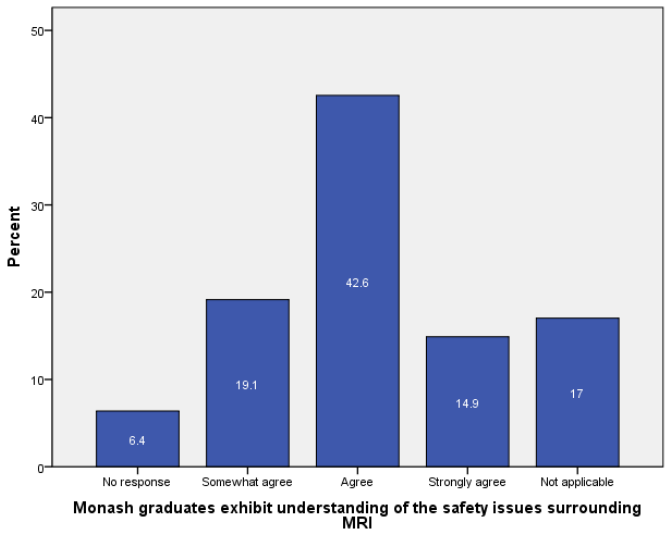
3. Monash graduates can recognise a range of arteries and veins on DSA images



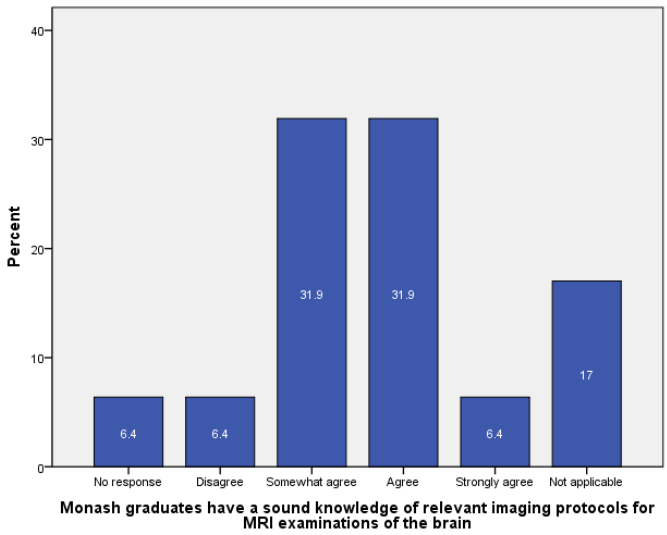
4. Monash graduates exhibit understanding of the fundamental principles underpinning MRI physics and instrumentation



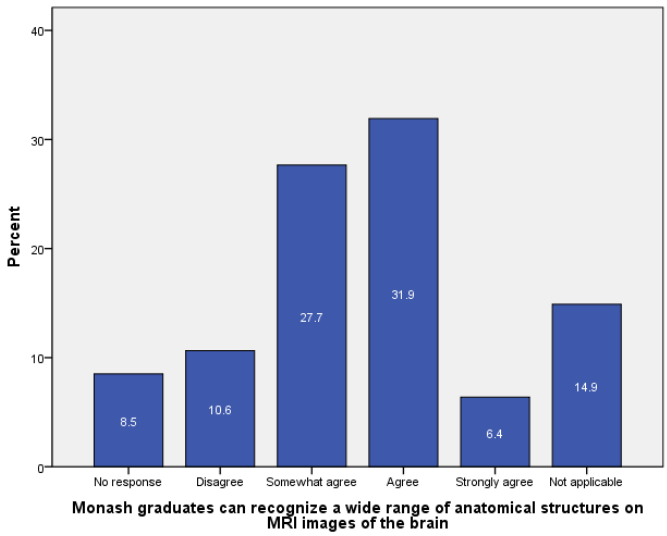
5. Monash graduates exhibit understanding of the safety issues surrounding MRI



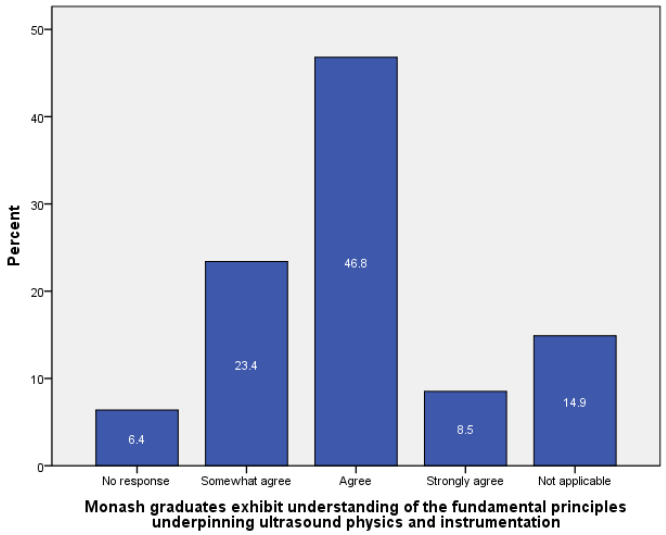
6. Monash graduates have a sound knowledge of relevant imaging protocols for MRI examinations of the brain



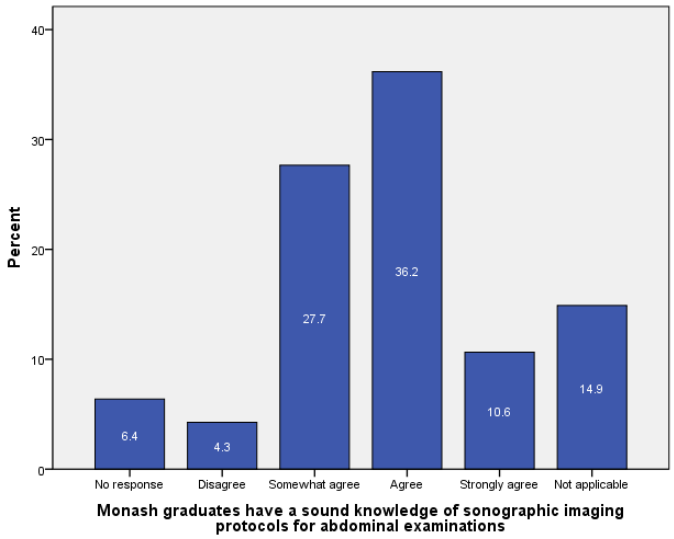
7. Monash graduates can recognize a wide range of anatomical structures on MRI images of the brain



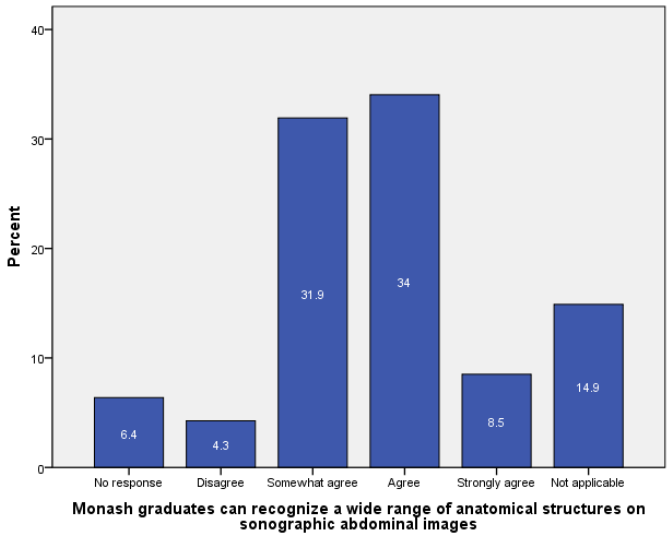
8. Monash graduates exhibit understanding of the fundamental principles underpinning ultrasound physics and instrumentation



9. Monash graduates have a sound knowledge of sonographic imaging protocols for abdominal examinations

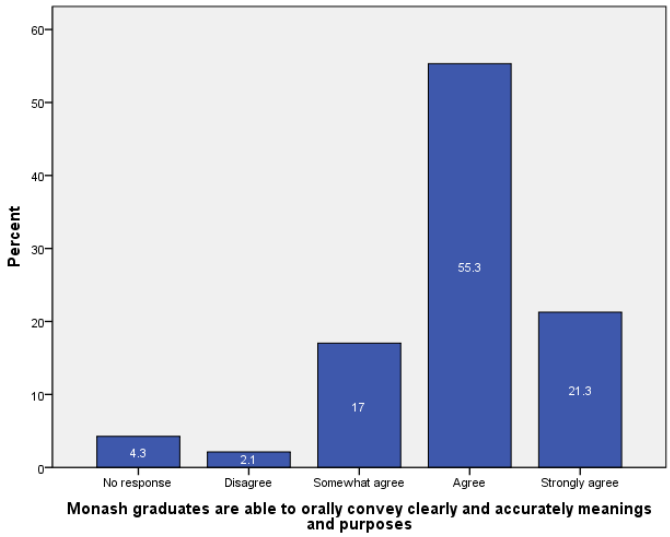


10. Monash graduates can recognize a wide range of anatomical structures on sonographic abdominal image

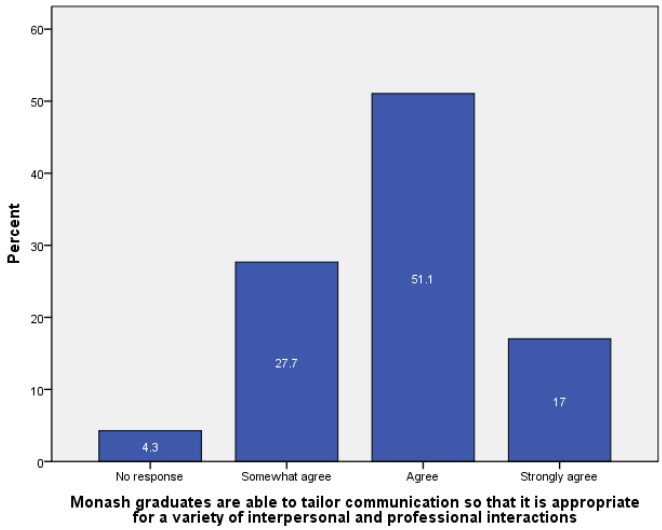


UNIVERSITY GRADUATE ATTRIBUTES

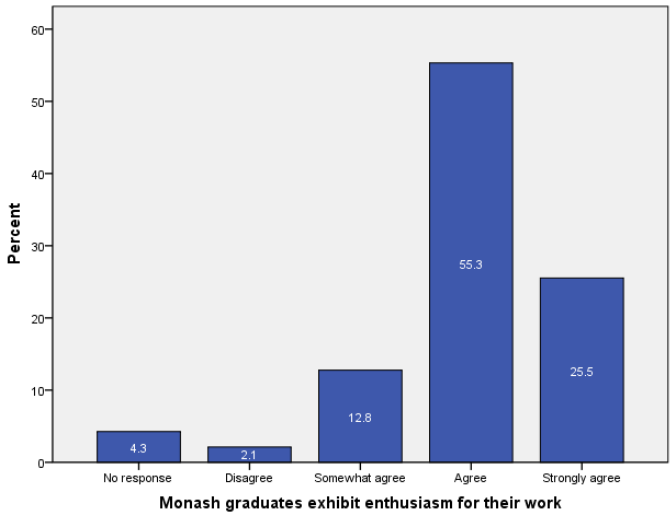
1. Monash graduates are able to orally convey clearly and accurately meanings and purposes



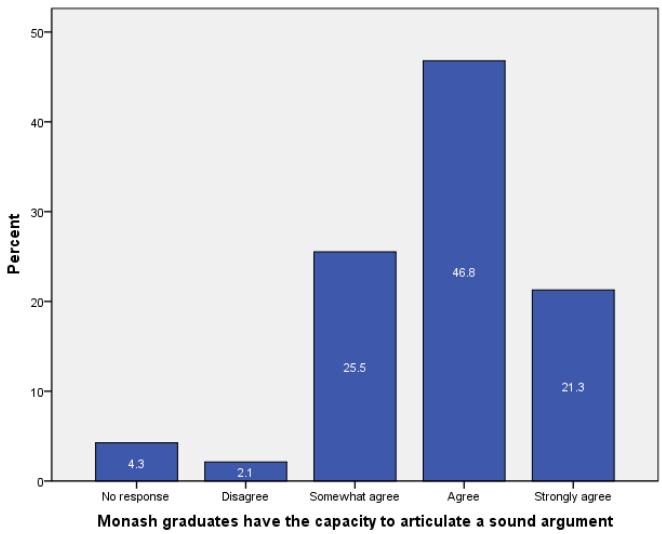
2. Monash graduates are able to tailor communication so that it is appropriate for a variety of interpersonal and professional interactions



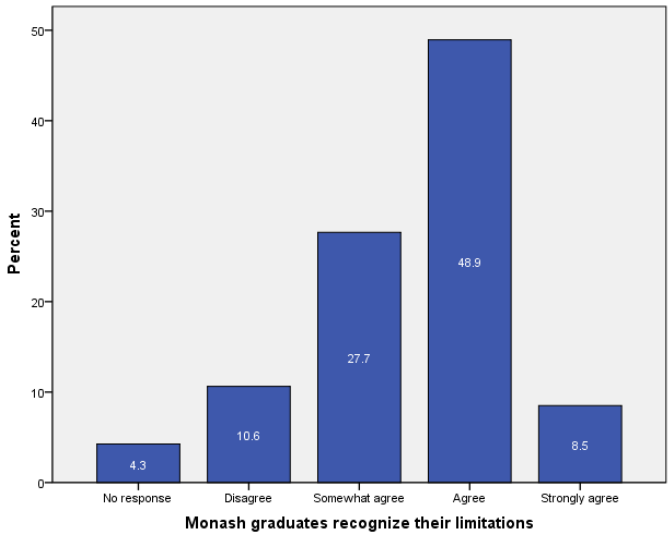
3. Monash graduates exhibit enthusiasm for their work



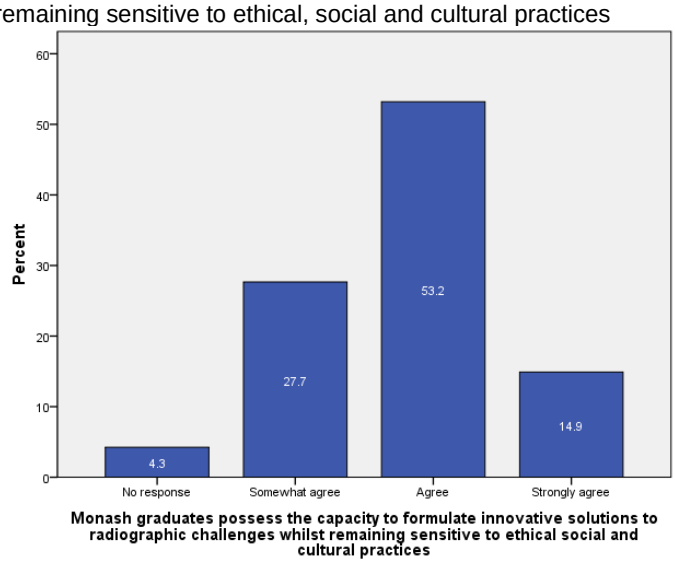
4. Monash graduates have the capacity to articulate a sound argument



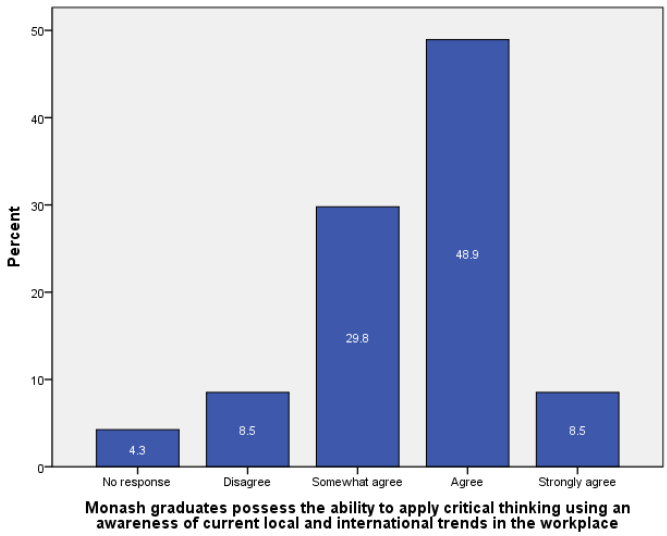
5. Monash graduates recognize their limitations



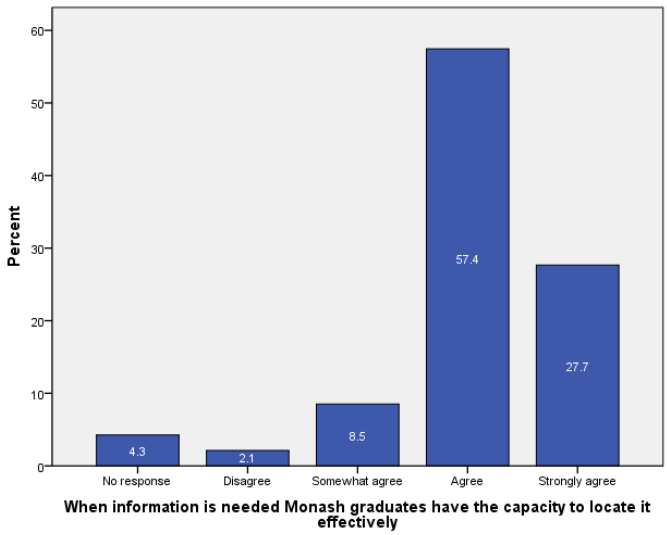
6. Monash graduates possess the capacity to formulate innovative solutions to radiographic challenges whilst remaining sensitive to ethical, social and cultural practices



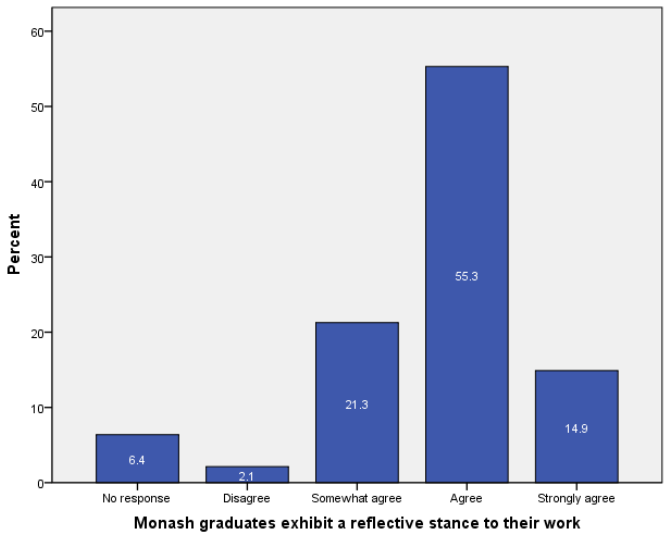
7. Monash graduates possess the ability to apply critical thinking using an awareness of current local and international trends in the workplace (make accurate inferences from data that is presented and draw appropriate conclusions)



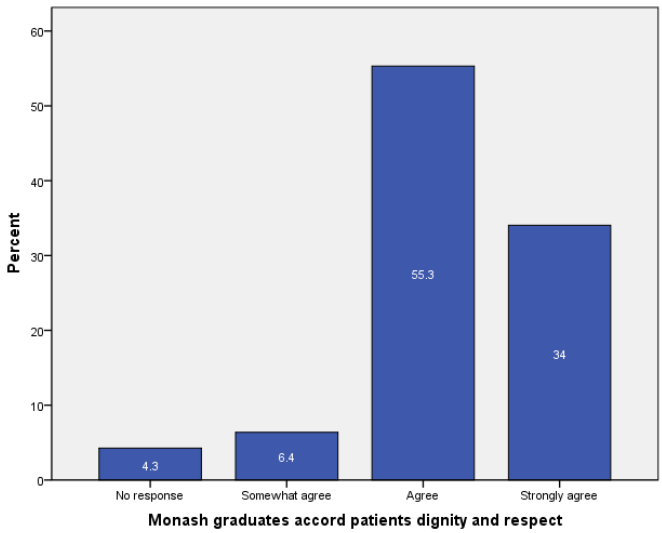
8. When information is needed Monash graduates have the capacity to locate it effectively



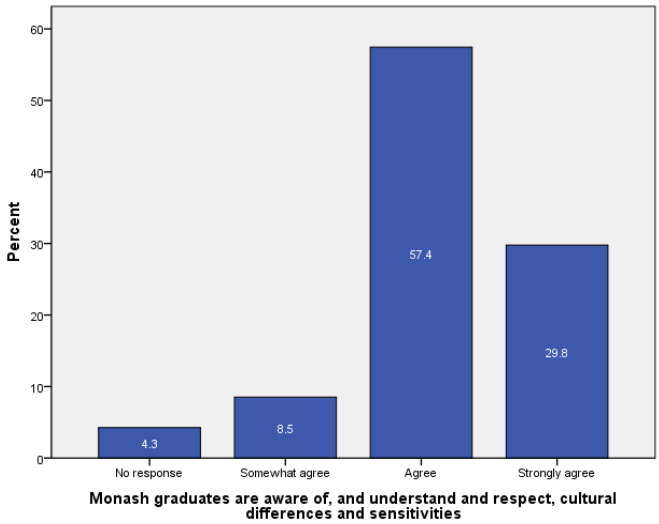
9. Monash graduates exhibit a reflective stance to their work



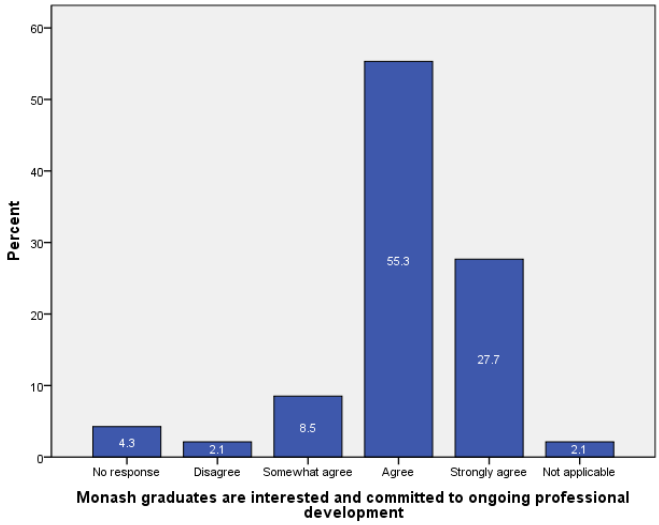
10. Monash graduates accord patients dignity and respect



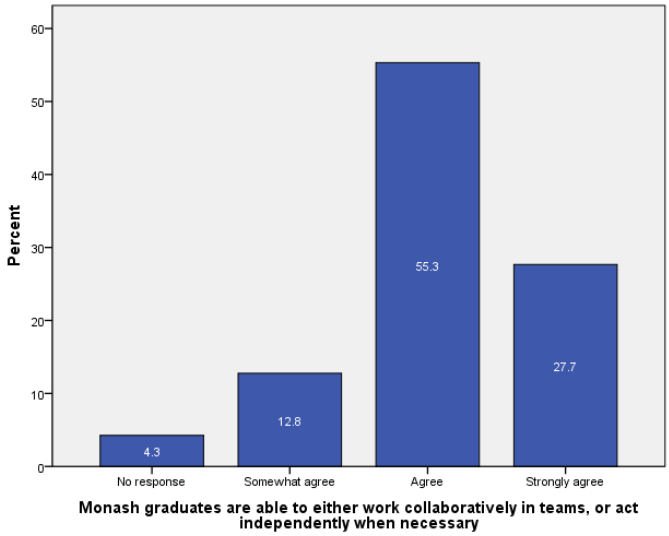
11. Monash graduates are aware of, and understand and respect, cultural differences and sensitivities



12. Monash graduates are interested and committed to ongoing professional development

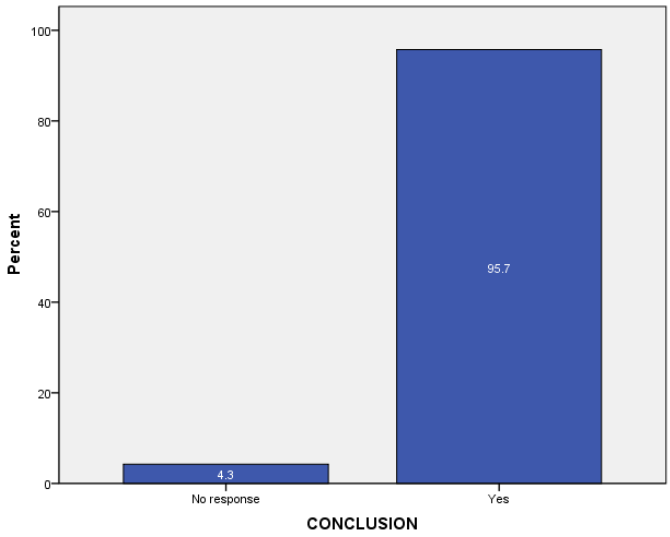


13. Monash graduates are able to either work collaboratively in teams, or act independently when necessary



CONCLUSION

On balance are you satisfied with the capacity of Monash graduates from the BRadMedImag course to realise the role and function of an accredited radiographer?



General comments

In addition to the invitation to complete the survey, respondents were invited to provide additional comments. These are reproduced verbatim below.

1. I have to say that one thing that can improve is enforcing international full fee paying students to speak conversational English. There is nothing worse than having Chinese (ex doctors, dentists etc that can't qualify in Australia) come through the department not being able to adequately communicate both with staff and patients alike. Very displeasing

2. Some of the "agree" rather than "strongly agree" grading relates to the fact that these are young adults still learning their way (in terms of maturity and being held responsible and accountable for their decisions and actions). Some thrive, others don't have the confidence yet. This is true of graduates from all universities. As a generalisation, the Monash Uni graduates are well prepared for the practical aspects of general radiography, and some think they are sonographers already. Angiography and fluoroscopy in particular require more practical work - most graduates have no concept about how fast blood flows around the body and the need to adjust frame rates e.g. between abdomen and feet. Many require assistance with fluoroscopy after hours as there is no nurse available to prepare the room and set up for a procedure - they need to be more proactive and learn the "peripheral" and practical things as well. Monash offers a great theoretical course with clinical experience, but lacks some of the practical training aside from taking an x-ray e.g. none can take off an infectious gown, gloves, hat and mask without contaminating themselves!

3. Our site has supported Monash Students over many years and has employed every Monash intern post PCP. Many Monash grads are in management roles in our department from the Chief down. The display excellent skills and ambitious natures. They take the opportunities that are presented to them and make the most of it.

4. I feel that as the years pass the student are becoming less capable at the hands on side of things in CT and have a glossed over version of the CT physics needed to really understand CT. They can scan competently however their knowledge of why and the intricacies behind it are somewhat lacking.

5. On occasions, depending on the individual student, I am concerned as to the amount of practical skill that is lost when a student completes theoretical work in the 2nd half of their 4th year. Upon graduation, sometime they are then a little behind.

6. This conclusion is the basis of our current Monash graduates who we happily employed. It is not the basis of all Monash graduates. Sometimes we find Monash is not taking into account the honest feedback that the clinical placement provided.

7. We are very happy with the Monash graduates we have had rotated through our department

8. We have been very happy with the Monash Graduates we have employed. As with any career further experience in their role as an MIT is what is needed to compound their learning. They continue to show an enthusiasm to learn which is a valuable attribute to an employee and good for the department and other employees they work with.

9. From my observation of PCP students I believe that 6 months is barely long enough for them to practise and incorporate all that they have learnt in the preceding 3yrs and bring them up to the level of a first year graduate in all areas of practice.

10. I do not feel able to answer this survey, as our single Monash Graduate did not come to us as a New Graduate. He had 3 years prior experience. I do not know whether his attributes came from being a Monash Graduate or from 3 years of work experience. In saying that we have always been pleased with professionalism and knowledge of Monash Students.

Discussion

Generally speaking the results are pleasing. However as with any human undertaking, not every student has fully realised our expectations. It was very disappointing to note the quite mixed responses to some of the questions. In particular, feedback concerning enthusiasm for their work, recognition of their limitations and problem solving abilities. The course team will be actively exploring ways to improve student attitudes and abilities.

In respect to the qualitative feedback, it was disappointing to learn that despite the provision of classes from nurse educators in the context of RAD2012, many students failed to master the art of gowning up etc. We will include this as a competency requirement within the framework of the Year 3 general radiography assessments. The claim that students are less capable in respect to CT than in previous years is surprising. However, in 2010 there was a change in the timing of semester one year 3 clinical studies due to the fact that the other university in the State offering a radiography course, changed its clinical rotations and a compromise had to be met. This meant that instead of students undertaking CT clinical studies after 6 weeks of on campus classes, they now undertake CT clinical studies after a one week intensive academic preparation. We have not noticed any difference in the capacity of students to meet the clinical competencies but clearly for some students, a greater immersion in theory is needed prior to entering the clinical setting. We will re-examine the timing of CT clinical studies for 2013. Having said all of this there has been no difference in the grade distributions following the collation of examination results from previous years. It does need to be appreciated by the clinical setting that irrespective of how we might try to ensure all students receive a similar CT experience, it doesn't always happen. Whilst students are examined in respect to their knowledge and understanding of CT physics, not all students will apply themselves to mastering all of the concepts. We will continue to monitor student performance in this aspect of practice. It does need to be appreciated however, that we cannot insist students attend our lecture program and read the copious materials we provide on the on line learning system.

The situation with respect to international students is complex. All courses are expected to meet their international quotas. The quota for BRadMedImag is 4. The majority of the international students who gain a place on the BRadMedImag come via the Year 12 VCE process. In other words with minor exceptions, these students have been in Australia from Year 10. Thus one would expect their conversational English to be adequate. The IELTS expectation of the commencing International students has been increased in recent years as has the score accepted for both English Language and English as a Second Language (ESL) for Year 12 students. The Faculty works hard to provide appropriate language support to International students and we always refer students we identify as being relatively weak in conversational English to the support centres. It is not possible for us to interview off shore international students from China. We do interview non year 12 students who apply for a place in the course. This means that if there are international students who may have begun study in for example a general science degree and who subsequently decide to apply to transfer to the BRadMedImag we get an opportunity to assess their conversational English. We will continue to monitor the situation.

The comment that indicated we failed to act upon feedback from the clinical centres requires a response. Clinical studies are an embedded component of academic units. This means that students are allowed to be given the same opportunity to improve and be re-assessed as they are given should they fail a theory exam. Thus on occasions it may appear to clinical centres that we have ignored their feedback when they see a student they identified as a problem, on the following year list. It was only in 2010 that the Faculty finalised its professional behaviour policies a copy of which was included in the 2011 Clinical Studies Guidelines we distributed to all centres. We are of the view this policy will be very helpful in enabling us to more adequately address issues around students whom centres indicate are not quite up to the expected standard. I am satisfied that through the clinical visiting process, we do address issues as they arise and provide support to the clinical centres. When requested to do so by the clinical centres students have been removed and refused another clinical rotation until they complete remedial activities.

Finally, it was surprising to read the comment regarding the length of the PCP. Yet on balance, perhaps it is not unexpected. Not every student progresses at quite the same speed as others in the same year level. Yet even prior to the introduction of a new monitoring approach to the PCP, supervisors were required to clearly indicate if the student had reached the requisite standard upon completion of the PCP. It is to be hoped that the new approach taken to the overall management of the PCP will empower supervisors to provide the kind of feedback that brings those students who believe their general radiography progress is satisfactory, to the realisation that more effort will be required if they are to reach the requisite stage on the novice to expert model of clinical skill development.

Conclusion

We are grateful to those who completed the survey and provided qualitative commentary. We remain committed to the continuous improvement of the course and in particular the on-campus preparation for clinical practice. The new radiographic laboratory due to be opened in March 2012 will undoubtedly assist us in this regard.

A/Prof Marilyn Baird Convenor BRadMedImag
January 2012.