

Appendix B- Summary Tables

Table 1: Significant Differences Between Coders and Non-Coders and the Projected Level of Competence

Description of Question	Proj Level	Total Mean	Mean Coders 1	Mean Non-Coders 1	Mean Coders 2	Mean Non-Coders 2
Q1A. Understanding of ICD-9-CM	4***	3.86	4.40 h	3.40	4.45 h	3.59
Q1B. Understanding of CPT	4 Non-coder 1,2***	3.45	3.95	3.01	3.95	3.21
Q1C. Understanding of DSM-IV	4***	1.93	1.87	1.96	1.95	1.92
Q1D. Understanding of SNOMED	4***	1.48	1.44	1.52	1.51	1.47
Q1E. Understanding of ICD-O	4***	1.63	1.57	1.69	1.63	1.64
Q1F. Understanding of ICD-10	4***	1.74	1.81	1.69	1.91	1.67
Q2. Ability to gather clinical data from primary data sources	5***	4.09	4.21	3.99	4.24	4.02
Q3. Understanding of the elements required for research and outcomes	4*	3.71	3.73	3.69	3.69	3.72
Q4. Ability to participate in the design of studies	4 Non-coder 1, 2*** Coder 1, 2**	3.52	3.59	3.46	3.46	3.55
Q5. Ability to collect, analyze and interpret medical information for quality and accuracy	4 Coder 1*	4.14	4.25 h	4.05	4.17	4.13
Q6. Ability to design specifications for study around outcomes	4***	3.40	3.40	3.40	3.26	3.47
Q7. Ability to review data and identify patterns, trends, and so on	4	3.90	3.78	4.01	3.67	4.01
Q8. Ability to design audit tools	5***	3.70	3.66	3.72	3.51	3.78
Q9. Ability to perform quality audits	5***	3.95	3.95	3.95	3.76	4.04
Q10. Ability to identify the problems and issues suggested by audits	5***	4.05	4.08	4.02	4.00	4.07
Q11. Understanding the flow of the data to be captured on the form	4	4.02	4.02	4.03	4.04	4.02
Q12. Ability to create attractive, high-quality	5***	3.88	3.79	3.95	3.72	3.95

documents						
Q13. Ability to integrate information	5***	3.84	3.73	3.93	3.68	3.92
Description of Question	Proj Level	Total Mean	Mean Coders 1	Mean Non-Coders 1	Mean Coders 2	Mean Non-Coders 2
Q14. Ability to transmit documents electronically	5***	4.07	3.94	4.18	3.89	4.15
Q15. Proficiency in word processing and spreadsheet applications	5***	4.18	4.01	4.34	4.00	4.27
Q16. Ability to communicate electronically both internally and externally	3***	4.41	4.42 h	4.40 h	4.40 h	4.42 h
Q17. Ability to obtain data from the internet and other remote sources	3***	4.35	4.31 h	4.38 h	4.38 h	4.33 h
Q18. Ability to identify clinical data and where it is warehoused	4	3.93	3.81	4.02	3.82	3.97
Q19. Ability to select statistical applications appropriate to the data to be captured	4***	3.44	3.35	3.52	3.27	3.53
Q20. Discussing the statistical software used in an organization	4***	3.11	3.18	3.05	3.14	3.10
Q21. Ability to use and interpret data from reimbursement software applications such as DRG groupers, case mix programs, APCs and so forth	4 Non-coder 1,2*** Coder 1*	3.17	3.64	2.75	3.70	2.92
Q22. Ability to choose the appropriate software package and to create high-quality presentation materials using appropriate software for training, education, and presentation of clinical data and statistical information	4***	3.29	3.31	3.27	3.35	3.26
Q23. Ability to analyze an audience to determine the appropriate presentation style and data to be presented	4 Coder 1,2*** Non-coder 2*** Non-coder 1**	3.31	3.04	3.56	2.93	3.50

Description of Question	Proj Level	Total Mean	Mean Coders 1	Mean Non-Coders 1	Mean Coders 2	Mean Non-Coders 2
Q24. Ability to identify project participants	4 Coder 1,2*** Non-coder 2*** Non-coder 1**	3.46	3.26	3.64	3.16	3.61
Q25. Ability to identify steps and sequences of steps with the project	4 Coder 1,2***	3.70	3.48	3.90	3.36	3.87
Q26. Ability to construct the project timeline	4 Coder 1,2***	3.63	3.37	3.86	3.28	3.80
Q27. Ability to identify and manage project costs	4***	3.30	3.11	3.47	3.04	3.43
Q28. Ability to manage task and timeline revisions	4 Coder 1,2***	3.62	3.37	3.84	3.25	3.80
Q29. Understanding of budget categories and cost structure	4 Coder 1,2*** Non-coder 2*** Non-coder 1**	3.42	3.28	3.55	3.16	3.55
Q30. Ability to identify the data to be collected in a computer application	4 Coder 1,2**	3.73	3.54	3.90	3.47	3.85
Q31. Ability to communicate needs to computer programmers	4 Coder 1,2**	3.75	3.60	3.88	3.55	3.84
Q32. Ability to develop technical specifications for programming	4***	2.83	2.60	3.03	2.60	2.94
Q33. Ability to understand specific data elements and their values	4 Coder 1,2*** Non-coder 1,2*	3.65	3.51	3.76	3.46	3.73
Q34. Ability to create and revise clear policies and procedures	5***	4.04	3.86	4.19	3.74	4.18
Q35. Ability to determine and identify areas in which policies and procedures are needed	5***	4.18	4.00	4.33	3.84	4.34
Q36. Ability to present main issues for decision making	5***	4.05	3.79	4.28	3.62	4.26
Q37. Ability to identify where skills fit within the organization	5***	4.02	3.79	4.21	3.64	4.2

Description of Question	Proj Level	Total Mean	Mean Coders 1	Mean Non-Coders 1	Mean Coders 2	Mean Non-Coders 2
Q38. Ability to demonstrate skills and knowledge base	5***	4.18	3.96	4.36	3.82	4.34
Q39. Ability to recognize cultural barriers within the current organization	5***	3.89	3.65	4.08	3.47	4.08
Q40. Ability to clarify essential outcomes within a given context	5***	3.69	3.39	3.95	3.21	3.92
Q41. Ability to demonstrate flexibility in approach	5***	4.04	3.83	4.21	3.69	4.20
Q42. Ability to identify peers who could assist in projects	5***	4.18	3.98	4.35	3.84	4.34
Q43. Ability to communicate to others at all levels of the organization	5***	4.28	4.19	4.35	4.16	4.34
Q44. Ability to produce clear and appropriate written and verbal communication	5***	4.30	4.14	4.43	4.17	4.36
Q45. Ability to act as a liaison between parties within the organization or on the organizations behalf	5***	4.16	3.89	4.39	3.75	4.35

KEY

“1” = **Mean 1 scores** include categories that comprise all coding categories in the job functions pertaining to coders (05A-C, 06A-C, 07A-C, 08A-C) (n = 182, coders = 84, non-coders = 98)

“2” = **Mean 2 scores** include all coder categories with managers of coding removed (job functions 05A, 06A, 07A, 08A which represent managers of coding removed) and placed in the non-coder category (n = 182, coders = 58, non-coders = 124)

- * = Statistically significant at p < 0.05
- ** = Statistically significant at p < 0.01
- *** = Statistically significant at p < 0.001
- h = Statistically significant higher competence

Please note that both coders and non-coders were compared, through a one sample T-test, to the projected competency level. If there was a significant difference between the coders or non-coders mean score and the projected score, an asterisk was placed in the projected level column.

Table 2: Significant Differences Between Coders and Non-Coders for All Questions

Description of Question	Total Mean	Mean Coders 1	Mean Non-Coders 1	Mean Coders 2	Mean Non-Coders 2
Q1A. Understanding of ICD-9-CM	3.86	4.40	3.40***	4.45	3.59***
Q1B. Understanding of CPT	3.45	3.95	3.01***	3.95	3.21***
Q1C. Understanding of DSM-IV	1.93	1.87	1.96	1.95	1.92
Q1D. Understanding of SNOMED	1.48	1.44	1.52	1.51	1.47
Q1E. Understanding of ICD-O	1.63	1.57	1.69	1.63	1.64
Q1F. Understanding of ICD-10	1.74	1.81	1.69	1.91	1.67
Q2. Ability to gather clinical data from primary data sources	4.09	4.21	3.99	4.24	4.02
Q3. Understanding of the elements required for research and outcomes	3.71	3.73	3.69	3.69	3.72
Q4. Ability to participate in the design of studies	3.52	3.59	3.46	3.46	3.55
Q5. Ability to collect, analyze and interpret medical information for quality and accuracy	4.14	4.25	4.05	4.17	4.13
Q6. Ability to design specifications for study around outcomes	3.40	3.40	3.40	3.26	3.47
Q7. Ability to review data and identify patterns, trends, and so on	3.90	3.78	4.01	3.67	4.01
Q8. Ability to design audit tools	3.70	3.66	3.72	3.51	3.78
Q9. Ability to perform quality audits	3.95	3.95	3.95	3.76	4.04
Q10. Ability to identify the problems and issues suggested by audits	4.05	4.08	4.02	4.00	4.07
Q11. Understanding the flow of the data to be captured on the form	4.02	4.02	4.03	4.04	4.02
Q12. Ability to create attractive, high-quality documents	3.88	3.79	3.95	3.72	3.95
Q13. Ability to integrate information from other	3.84	3.73	3.93	3.68	3.92

sources into documents					
Description of Question	Total Mean	Mean Coders 1	Mean Non-Coders 1	Mean Coders 2	Mean Non-Coders 2
Q14. Ability to transmit document electronically	4.07	3.94	4.18	3.89	4.15
Q15. Proficiency in word processing and spreadsheet applications	4.18	4.01	4.34*	4.00	4.27
Q16. Ability to communicate electronically both internally and externally	4.41	4.42	4.40	4.40	4.42
Q17. Ability to obtain data from the internet and other remote sources	4.35	4.31	4.38	4.38	4.33
Q18. Ability to identify clinical data and where it is warehoused	3.93	3.81	4.02	3.82	3.97
Q19. Ability to select statistical applications appropriate to the data to be captured	3.44	3.35	3.52	3.27	3.53
Q20. Discussing the statistical software used in an organization	3.11	3.18	3.05	3.14	3.10
Q21. Ability to use and interpret data from reimbursement software applications such as DRG groupers, case mix programs, APCs and so forth	3.17	3.64	2.75***	3.70	2.92**
Q22. Ability to choose the appropriate software package and to create high-quality presentation materials using appropriate software for training, education, and presentation of clinical data and statistical information	3.29	3.31	3.27	3.35	3.26
Q23. Ability to analyze an audience to determine the appropriate presentation style and data to be presented	3.31	3.04	3.56**	2.93	3.50**
Q24. Ability to identify project participants	3.46	3.26	3.64*	3.16	3.61*

Description of Question	Total Mean	Mean Coders 1	Mean Non-Coders 1	Mean Coders 2	Mean Non-Coders 2
Q25. Ability to identify steps and sequences of steps with the project	3.70	3.48	3.90**	3.36	3.87**
Q26. Ability to construct the project timeline	3.63	3.37	3.86**	3.28	3.80**
Q27. Ability to identify and manage project costs	3.30	3.11	3.47	3.04	3.43
Q28. Ability to manage task and timeline revisions	3.62	3.37	3.84*	3.25	3.80**
Q29. Understanding of budget categories and cost structure	3.42	3.28	3.55	3.16	3.55
Q30. Ability to identify the data to be collected in a computer application	3.73	3.54	3.90*	3.47	3.85*
Q31. Ability to communicate needs to computer programmers	3.75	3.60	3.88*	3.55	3.84
Q32. Ability to develop technical specifications for programming	2.83	2.60	3.03*	2.60	2.94
Q33. Ability to understand specific data elements and their values	3.65	3.51	3.76	3.46	3.73
Q34. Ability to create and revise clear policies and procedures	4.04	3.86	4.19*	3.74	4.18**
Q35. Ability to determine and identify areas in which policies and procedures are needed	4.18	4.00	4.33**	3.84	4.34**
Q36. Ability to present main issues for decision making	4.05	3.79	4.28***	3.62	4.26***
Q37. Ability to identify where skills fit within the organization	4.02	3.79	4.21**	3.64	4.20**
Q38. Ability to demonstrate skills and knowledge base	4.18	3.96	4.36**	3.82	4.34**
Q39. Ability to recognize cultural barriers within the current organization	3.89	3.65	4.08*	3.47	4.08***

Description of Question	Total Mean	Mean Coders 1	Mean Non-Coders 1	Mean Coders 2	Mean Non-Coders 2
Q40. Ability to clarify essential outcomes within a given context	3.69	3.39	3.95**	3.21	3.92***
Q41. Ability to demonstrate flexibility in approach	4.04	3.83	4.21*	3.69	4.20**
Q42. Ability to identify peers who could assist in projects	4.18	3.98	4.35**	3.84	4.34**
Q43. Ability to communicate to others at all levels of the organization	4.28	4.19	4.35*	4.16	4.34*
Q44. Ability to produce clear and appropriate written and verbal communication	4.30	4.14	4.43*	4.17	4.36
Q45. Ability to act as a liaison between parties within the organization or on the organizations behalf	4.16	3.89	4.39***	3.75	4.35***

KEY

“1” = **Mean 1 scores** include categories that comprise all coding categories in the job functions pertaining to coders (05A-C, 06A-C, 07A-C, 08A-C) (n = 182, coders = 84, non-coders = 98)

“2” = **Mean 2 scores** include all coder categories with managers of coding removed (job functions 05A, 06A, 07A, 08A which represent managers of coding removed) and placed in the non-coder category (n = 182, coders = 58, non-coders = 124)

- * = Statistically significant at p < 0.05
- ** = Statistically significant at p < 0.01
- *** = Statistically significant at p < 0.001
- h = Statistically significant higher competence

Please note that the mean score of coders and non-coders were compared using a Mann-Whitney U test. If scores were significantly different between the mean score of coders and non-coders, asterisks were placed in the related mean column.