**OMB DITAP Pre-Program Assessment**

**Item Level Results**

# Scenario 1

At your weekly division meeting, the topic of digital services comes up. Knowing of your recent opportunity to participate in this program, your boss asks you to prepare a 30 minute "Lunch and Learn" session to inform your colleagues about why digital services are such a hot topic right now, and specifically why they pose a challenge for acquisition. Later that day, your boss follows up with several questions that she would like to make sure you cover in the presentation.

Question 1, Main (Obj. 1.1):Your boss would like you to explain why it is necessary for government to improve the way it acquires and deploys digital services. What would you say is the most important reason why?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. To enable more efficient internal operations across the government. | 17 | 58.62 |
| 1. To facilitate increasing engagement with its citizens and consumers. \* | 10 | 34.48 |
| 1. To help agencies who compete in the marketplace with commercial entities. | 2 | 6.90 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.34 | 0.13 | 0.15 |

Question 1, Main Discussion: *This item was hard/medium hard, with marginal discrimination results. Most people who missed it chose A.*

Question 1, After Correct Answer (Obj. 1.1):Which of the following most closely aligns with your views on why digital services are challenging for the government?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. There is a lack of guidance across the government on how to effectively acquire and deliver digital services. | 7 | 70.00 |
| 1. The nature of the federal acquisition regulation is overly restrictive and limits creative and flexible solutions. | 1 | 10.00 |
| 1. Successful solutions focus less on process-adherence and more on enabling outcomes that result from human effort.\* | 2 | 20.00 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 10 | 0.20 | 0.50 | 4/3 | 0.56 |

Question 1, Correct Follow-up Discussion: *This item was hard, but with very good discrimination. Most people chose A, and based on the way the question is worded, I’m not sure there’s a wrong answer (they identified the response that most closely aligned with their views – not necessarily what was taught).*

Question 1, After Wrong Answer (Obj. 1.1):What would you say is the most important outcome for successful digital service delivery in the government?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Designing a contract that supports end user needs within the boundaries of the customer's operational environment.\* | 14 | 73.68 |
| 1. Fulfilling the contractual objectives as articulated in the initial requirement by the established delivery date. | 2 | 10.53 |
| 1. Creating a legally sufficient contract that holds the contractor accountable for delivering exactly what the customer requires. | 3 | 15.79 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 19 | 0.74 | 0.15 | 4/5 | -0.10 |

Question 1, Wrong Follow-up Discussion: *This item was easy/medium, with marginal discrimination. Most individuals identified the correct response, though again, the wording of the question, “what would you say,” leaves it open as to whether there is an incorrect response.*

Question 2, Main (Obj 1.2, 1.3, & 1.5):Your boss would like you to explain how the methods used by digital services professionals differ from traditional Information Technology (IT) methods. Which of the following best represents what you would say?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Digital services methods differ from traditional IT methods because they focus on solutions that provide outcomes based on the user’s needs. \* | 29 | 100.00 |
| 1. Digital services methods are more expensive than traditional IT methods because they address unknown user challenges. | 0 | 0.00 |
| 1. Digital services methods do not conduct planning like traditional IT acquisition strategies; they seek to enable the capabilities of talented technologists. | 0 | 0.00 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 1.00 | 0.00 | N/A |

Question 2, Main Discussion: *This item was easy. Everyone identified the correct response.*

Question 2, After Correct Answer (Obj 1.2 & 1.5):What do you think is the biggest challenge for digital services professionals who work within the Federal government?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Developing a structured approach for gathering end user feedback. | 1 | 3.45 |
| 1. Completing projects within the established schedule and budget. | 6 | 20.69 |
| 1. Partnering with others who may not understand their methods\* | 22 | 75.86 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial |
| 29 | 0.76 | 0.25 | 8/8 | 0.06 |

Question 2, Correct Follow-up Discussion: *This item was easy/medium, with marginal discrimination (acceptable discrimination index, low point biserial). Distractor B was the most commonly chosen incorrect response.*

Question 2, After Wrong Answer (Obj 1.2 & 1.5):How would you describe the way digital service professionals perform their work?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Digital Service professionals focus on a set of requirements and develop products to meet those requirements. | 0 | 0.00 |
| 1. Digital Service professionals develop products iteratively and collect feedback throughout each iteration.\* | 0 | 0.00 |
| 1. Digital Service professionals build components in a sequenced order so each component builds on the next. | 0 | 0.00 |
| 1. I don’t know. | 0 | 0.00 |

Question 2, Wrong Follow-up Discussion: *No one had the opportunity to respond to this item. Everyone identified the correct response to the main question.*

# Scenario 2

You have just been assigned to a new program office that is responsible for managing and maintaining a large, public data set. They need services of all kinds, and you are going to be responsible for managing the contract portfolio that will service this office for the next fiscal year. You know that this is a highly visible program with a very public-facing mission, and that a large portion of the contract portfolio will require you to effectively and efficiently acquire digital services.

Question 1, Main (Obj. 3.1 & 3.2):As you start thinking about sources of supply for this contract portfolio, which of the following best represents your initial thoughts?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. There are going to be very few companies that are capable of providing the level of sophistication necessary to design and deliver the right solutions for your customer. | 1 | 3.45 |
| 1. Most companies that do business with the government will be able to hire technologists to deliver the necessary outcomes as long as those outcomes are well-defined. | 6 | 20.69 |
| 1. Digital services can be procured from any company, large or small, provided they demonstrate the capability to design and deliver a product that meets the user's needs. \* | 22 | 75.86 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.76 | 0.13 | 0.09 |

#### Question 1, Main Discussion: This item was easy/medium, with marginal discrimination. Distractor B was the most commonly chosen incorrect response.

Question 1, After Correct Answer (Obj 3.1 &3.2): Given your initial thinking about sources of supply, what type of acquisition methods would you consider?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Single award contract using full and open competition. | 4 | 18.18 |
| 1. Multiple-award contracts and small, modular contracts.\* | 18 | 81.82 |
| 1. Scope modifications to existing development contracts. | 0 | 0.00 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 22 | 0.82 | 0.20 | 6/5 | 0.11 |

#### Question 1, Correct Follow-up Discussion: This item was easy/medium with acceptable discrimination (better discrimination index, marginally acceptable point biserial). No one chose option C, which makes it seem like a bad distractor.

Question 1, After Wrong Answer (Obj 3.1 &3.2):What would be your first step after considering possible sources of supply?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Conduct market research\* | 3 | 42.86 |
| 1. Identify a procurement vehicle | 1 | 14.29 |
| 1. Develop an acquisition strategy | 3 | 42.86 |
| 1. I don’t know | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 7 | 0.43 | 0.67 | 2/3 | -0.14 |

#### Question 1, Wrong Follow-up Discussion: This item was medium/hard for those who took it. The item discriminated well for those top performers who missed the main question vs. the bottom performers who missed the main question, which I would give more weight to than the point biserial when only 7 of the participants received the question.

Question 2, Main (Obj 2.3):How would you work with the program customer to help them match their digital service needs to the capabilities of the private marketplace?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Ask the customer to send you a requirements document to help you understand his or her needs and conduct the necessary market research. | 1 | 3.45 |
| 1. Meet with the customer to discuss the types of problems he or she will be attempting to solve, or the outcomes he or she wants to deliver.\* | 28 | 96.55 |
| 1. Provide the customer with a list of the digital service categories that you think he or she will need and request his or her feedback. | 0 | 0.00 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.97 | 0.00 | 0.01 |

#### Question 2, Main Discussion: This item was easy and does not discriminate between better and worse performers.

Question 2, After Correct Answer (Obj 2.4 & 2.5):As you work with your customer on this contract portfolio, what do you think will be the biggest communication challenge?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Maintaining the distinction between the acquisition customer and the ultimate user of the digital service outcome.\* | 5 | 17.86 |
| 1. Describing how the federal acquisition process limits flexibility to design digital services that address the needs of users. | 0 | 0.00 |
| 1. Helping customers and users understand what the acquisition process requires from them to deliver digital service outcomes. | 23 | 82.14 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 28 | 0.18 | 0.25 | 8/8 | 0.30 |

#### Question 2, Correct Follow-up Discussion: This item was hard, but has good discrimination on both indices. However, I would triple check that option C is not a viable correct response.

Question 2, After Wrong Answer (Obj 1.7):Based on the information you receive from the customer, how would you decide if Agile concepts would be applicable?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. If commercial off-the-shelf IT items match the requirement(s). | 0 | 0.00 |
| 1. If subscription services for software licenses are needed. | 0 | 0.00 |
| 1. If significant software design and development is needed.\* | 1 | 100.00 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 1 | 1.00 | N/A | 0/0 | 0.30 |

Question 2, Wrong Follow-up Discussion: *I would not interpret anything in these results based on one person.*

Terminology Question 1 (Obj. 1.6 & 2.3): Software as a Service is part of which of the following digital services sectors?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Design Services | 4 | 13.79 |
| 1. Software Development | 5 | 17.24 |
| 1. Cloud Services\* | 14 | 48.28 |
| 1. Open Source Software | 3 | 10.34 |
| 1. I don’t know | 3 | 10.34 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.48 | 0.25 | 0.16 |

#### Terminology Question 1 Discussion: This item was medium hard, with acceptable discrimination (good discrimination index, acceptable point biserial). In addition, all response options were chosen by at least one individual.

# Scenario 3

The boss comes to you following a senior leadership staff meeting and explains to you that operational and financial information needs to be gathered and disseminated from multiple divisions within the agency far better than it currently is with current processes and stove-piped systems. Auditability, accountability, and improved agency operation with more and better information is imperative. He believes a new IT system that replaces all the existing systems and processes, as well as integrates all the information from the various divisions for real-time data reporting and analysis, is just the ticket.

Question 1, Main (Obj. 2.3, 2.4, 2.5, & 2.7):This is a hot requirement and the agency leadership is providing the heat. Which of the following best represents what you would do next?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Have the project owner provide a complete list of specific requirements and functionality so that market research can be started. | 6 | 20.69 |
| 1. See what IT products are available commercially or in use at other agencies that will fulfill the boss' requirements for data integration and reporting capability. | 4 | 13.79 |
| 1. Find out who is going to be using this system, both as providers and users of information and explore how they will interact with the system and why. \* | 19 | 65.52 |
| 1. I don’t know | 0 | 0.00 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.66 | 0.38 | 0.24 |

#### Question 1, Main Discussion: This item was medium difficulty, with good discrimination across indices. In addition, all response options (except “I don’t know”) were chosen by multiple individuals.

Question 1, After Correct Answer (Obj. 2.4 & 3.2):As you learn more about who and how they need to interact with the system, the list of stakeholder requirements grows. Given the tight budget and time constraints, how do you make the project requirements more realistic and still satisfy the mission requirements?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Guide the stakeholders to prioritize their requirements, uncover where they can be flexible, and engage with industry representatives to analyze delivery schedules for various functionality and future cost factors (e.g., upgrades) driven by evolving operational requirements.\* | 14 | 73.68 |
| 1. Guide the stakeholders to pare down their requirements to the minimum functionality essentials, and conduct market research to find a commercial product that is widely used, inexpensive, and can be rapidly customized to satisfy at least the minimum, immediate mission needs. | 5 | 26.32 |
| 1. Guide the senior leadership to identify those capabilities and functionality that are immediately required so that an appropriate, commercially available software package can be quickly deployed across the enterprise. | 0 | 0.00 |
| 1. I don’t know | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 19 | 0.74 | 0.17 | 6/3 | 0.34 |

#### Question 1, Correct Follow-up Discussion: This item was easy/medium difficulty, with good discrimination. However, no one chose option C, which makes me think it could be improved.

Question 1, After Wrong Answer (Obj. 2.2, 2.3, 2.5, & 2.7):Your market research reveals a commercially available and reasonably inexpensive software package that will satisfy the senior leadership’s immediate requirements with only minimal modification. Given the significant timeline and budget constraints, which of the following responses best describes how you would proceed?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. I would proceed with procuring and implementing this system, but I would ensure that the leadership and other stakeholders are trained on the new system and understand their roles and responsibilities relating to its use. | 5 | 50.00 |
| 1. I would not proceed with procuring and implementing this system, since there could be substantial conflicts in business processes, IT environments, and operations and sustainment implications that should be coordinated and resolved with all the stakeholders.\* | 3 | 30.00 |
| 1. I would not proceed with procuring and implementing this system. While commercial software may look quick and inexpensive, once it is modified and deployed, the Intellectual Property issues can make it unwieldy, unresponsive and expensive. | 1 | 10.00 |
| 1. I don’t know | 1 | 10.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 10 | 0.30 | 0.50 | 2/5 | -0.01 |

#### Question 1, Wrong Follow-up Discussion: This item was hard, with acceptable discrimination (I would put more stock in the discrimination index than point biserial given the number of missing responses, though the index comparison is also lopsided). I would follow-up on why Option A is incorrect, as the majority chose it.

Question 2, Main (Obj. 2.6, 3.1, 3.2, 3.5, 3.6, 3.7 & 3.8):The acquisition staff has documented the complete, prioritized IT system and schedule requirements based on the needs of the stakeholders and an understanding of the marketplace gained via proper market research. Now it’s time to get a solicitation on the street and hold a source selection. While you know your requirements for this acquisition, there are many approaches that can be taken by potential offerors to satisfy those requirements. How would you set up the requirement document in the solicitation to make sure you have the flexibility to select the approach that represents the best value to the agency?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Define the requirement in terms of prioritized outcomes or results (i.e., cost, functionality, schedule, security, performance risk) and ask offerors to propose innovative solutions that will meet those outcomes.\* | 14 | 48.28 |
| 1. Establish an agile system development process with prioritized functionality delivery schedules that offerors must adhere to so offerors have sufficient information for developing realistic proposals. | 13 | 44.83 |
| 1. Use your market research results that indicate a customized COTS solution is best, and create a solicitation specifying that approach to allow the agency to determine best value regarding cost, functionality, and schedule. | 0 | 0.00 |
| 1. I don’t know | 2 | 6.90 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.48 | 0.13 | -0.17 |

#### Question 2, Main Discussion: This item was medium/hard and the discrimination results are not persuasive. It appears that those who performed better chose option B. In addition, Option C was not chosen by anyone, indicating it may be in need of improvement.

Question 2, After Correct Answer (Obj. 3.4):One of the offerors proposes an approach that would require two of your stakeholders to alter their business and operational processes. This approach also proposes to cut development time and costs. Of the following choices, which option best describes what you would do?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. If the proposed approach supports the desired outcomes, obtain input from the stakeholders to determine if process changes are feasible and beneficial in the context of the project and solicitation requirements.\* | 11 | 78.57 |
| 1. Even if the offeror’s proposed approach supports the desired outcomes, it should not alter established agency business processes and must be evaluated accordingly. | 1 | 7.14 |
| 1. Approach the two stakeholders to discuss the proposed process changes and assess their degree of impact on stakeholder effectiveness, then determine how to evaluate the proposal. | 2 | 14.29 |
| 1. I don’t know | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 14 | 0.79 | -0.15 | 5/4 | -0.07 |

#### Question 2, Correct Follow-up Discussion: This item was easy/medium. The discrimination results are not persuasive, though that may be a relic from the Main item (i.e., better performers got the main item wrong).

Question 2, After Wrong Answer (Obj. 3.5 & 3.8): Most of the offers involve COTS software operating on the agency’s servers, creating limited agency software rights and future costs as the software and server environment continue to evolve and upgrade. Which of the following options best describes your view regarding whether this a valid concern that should have been addressed in the source selection criteria or is irrelevant to the immediate requirement?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Yes, this is a valid concern because IT projects should always consider the constantly evolving state of commercial software technology and the potential associated long-term resource and capability costs for the IT solution.\* | 15 | 100.00 |
| 1. No, this is not a critical concern because the immediate requirement is the operational priority and systems can be changed. | 0 | 0.00 |
| 1. No, this is not a critical concern because there is no way we can reasonably expect to anticipate or quantify potential long term costs in an industry that evolves so rapidly and unpredictably. | 0 | 0.00 |
| 1. I don’t know | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 15 | 1.00 | 0.00 | 3/4 | -0.03 |

#### Question 2, Wrong Follow-up Discussion: Everyone who received this item got it right. No further analysis of results is warranted, as the discrimination data is not helpful here.

# Scenario 4

The Orion Agency is contracting to develop software used in one of three core mission systems. The Orion Agency expects that the functions the end users will need to perform with the software will not be the same over time. The policy and regulatory environment is changing, and the Agency is struggling to fulfill end-user needs that are in flux due to these environmental changes. Orion Agency knows the end product must meet both the business objectives and end user needs.

Question 1, Main (Obj. 3.5):You are stepping in to provide guidance to the CO and COTR. Which of the following choices describes the approach you would take to structure vendor payment?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. The CO should include multiple product releases in the contract and tie vendor payment to each product release.\* | 26 | 89.66 |
| 1. The CO should create two checkpoints – one at 50% and the other at 100% of project completion for vendor payment. | 1 | 3.45 |
| 1. Vendor payment should be based on submission of deliverables, such as a Requirements Document, on a fixed timeline. | 2 | 6.90 |
| 1. I don’t know | 0 | 0.00 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.90 | 0.25 | 0.30 |

#### Question 1, Main Discussion: This item was easy/medium, and has good discrimination results. In addition, all response items (except “I don’t know”) were chosen by at least one person.

Question 1, After Correct Answer (Obj. 3.5):Now that the structure for vendor payment is established, how would you recommend including vendors in determining payment criteria?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Acquisition professionals create draft criteria, then ask vendor to review and provide recommendations. | 5 | 19.23 |
| 1. Ask vendor for criteria recommendations, then acquisition professionals review their recommendations and develop criteria. | 10 | 38.46 |
| 1. Vendor and acquisition professionals develop criteria during single, facilitated working session.\* | 10 | 38.46 |
| 1. I don’t know | 1 | 3.85 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 26 | 0.38 | 0.46 | 8/6 | 0.30 |

#### Question 1, Correct Follow-up Discussion: This item was medium/hard, but has very good discrimination results. In addition, all response items were chosen by at least one person. I suggest spending some time clarifying why option B is incorrect.

Question 1, After Wrong Answer (Obj. 3.2, 3.4 & 3.5):As you create the procurement, which of the following strategies would you establish to ensure the product meets the end-users needs?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Train government staff to inspect products and verify products meet all objectives listed in the Statement of Objectives. | 0 | 0.00 |
| 1. Involve end-users in the testing of the product to ensure criteria for end-user satisfaction have been fully satisfied.\* | 3 | 100.00 |
| 1. Create a specified schedule to deliver products on-time so end-users can begin to use products and provide feedback. | 0 | 0.00 |
| 1. I don’t know | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 3 | 1.00 | N/A | 0/2 | -0.40 |

#### Question 1, Wrong Follow-up Discussion: Only three individuals received this question, and all got it correct. No further analysis is warranted here.

Question 2, Main (Obj. 3.5):As you work with vendors to determine payment criteria, what are the two most critical characteristics of high-quality payment criteria that you would include?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Measurable and end-user satisfaction metrics.\* | 20 | 68.97 |
| 1. Time-bound and measures met/unmet task expectations. | 5 | 17.24 |
| 1. Specific objectives and on-time delivery. | 4 | 13.79 |
| 1. I don’t know | 0 | 0.00 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.69 | 0.25 | 0.39 |

#### Question 2, Main Discussion: This item was medium difficulty, with good discrimination. In addition, each option (except “I don’t know”) was chosen by multiple individuals.

Question 2, After Correct Answer (Obj. 3.5, 3.6 & 3.9):What strategy would you use to mitigate subsequent debate between vendors and the government regarding whether payment criteria have been met?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Hold a conference call at regular intervals throughout the project to review and collect vendor feedback about how to modify criteria. | 6 | 30.00 |
| 1. Request that the vendor provide a written description with each invoice detailing their justification for why criteria have been met. | 5 | 25.00 |
| 1. Both at the start of the project and at regular intervals, provide written reinforcement to all stakeholders that the specific requirements on the contract must be delivered at the negotiated price.\* | 7 | 35.00 |
| 1. I don’t know | 2 | 10.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 20 | 0.35 | 0.37 | 7/5 | 0.23 |

#### Question 2, Correct Follow-up Discussion: This item was medium/hard to hard, with good discrimination on both indices. In addition, each option was chosen by multiple individuals.

Question 2, After Correct Answer (Obj. 3.6):When structuring payment criteria, which of the following choices describes the most important thing you would do?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Identify the available options given mission requirements and trade-offs in capability, features, and schedule.\* | 4 | 44.44 |
| 1. Remain focused on how acquisition professionals can protect the government given the resource-constrained environment. | 1 | 11.11 |
| 1. Require vendors to submit written suggestions for measurement metrics and prescribed timing for payments. | 3 | 33.33 |
| 1. I don’t know | 1 | 11.11 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 9 | 0.44 | -0.33 | 1/3 | -0.37 |

#### Question 2, Wrong Follow-up Discussion: This item was medium/hard, with negative discrimination on both indices. Based on the good discrimination results from the main item, the negative results here may be a holdover from that finding.

Terminology Question 2 (Obj. 2.3 & 2.4):User Stories are:

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Performance-based descriptions of the agency need.\* | 21 | 72.41 |
| 1. Summaries of user feedback data received after a software release. | 4 | 13.79 |
| 1. Core elements of communication plans used when transitioning to new software systems. | 1 | 3.45 |
| 1. A measure of conversions or transactions executed by users on a web site. | 2 | 6.90 |
| 1. I don’t know. | 1 | 3.45 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.72 | 0.13 | -0.11 |

#### Terminology Question 2 Discussion: This item was easy/medium, but with unpersuasive discrimination between poor and good performers (marginal discrimination index; negative point biserial).

# Scenario 5

You have accepted a Contract Specialist role with a new small government agency. Upon arrival, you are introduced to Robert, a Program Manager, who expresses how he looks forward to working with you on his program. After Robert leaves, you ask your supervisor what program Robert was talking about. Your supervisor tells you that you will be supporting Robert and his Integrated Project Team (IPT). This team seeks to develop software that will allow training instructors the ability to post presentations online for training participants to access and interact with instructors. During your first meeting with Robert and the IPT, you find the team is a very involved group and are actively seeking ways to eliminate unnecessary steps in the process of posting content online while still retaining capabilities for participant-instructor interaction without the use of email.

Question 1, Main (Obj. 3.1):As the Contract Specialist, which of the following best represents how you would start to work with the IPT to ensure their success?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Meet with the IPT to understand the required capability, functionality and/or performance that will meet their needs.\* | 27 | 93.10 |
| 1. Talk with the IPT about a solution that will solve the perceived problems being encountered today. | 2 | 6.90 |
| 1. Ask the IPT for their Statement of Work document so you can review and issue a solicitation to satisfy their requirements. | 0 | 0.00 |
| 1. I don’t know | 0 | 0.00 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.93 | 0.00 | -0.06 |

#### Question 1, Main Discussion: This item was easy, which negates the discrimination index and contributes to the point biserial findings. No further analysis is warranted here.

Question 1, After Correct Answer (Obj. 2.2 & 2.4): As you meet with the IPT, what information do you think can best assist the IPT in developing their requirement(s)?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. The proportion of the department budget allocated for the proposed services and the IPT members’ technical preferences. | 1 | 3.70 |
| 1. The IPT members’ understanding of end-user needs and the history of implementing similar services at this organization. | 22 | 81.48 |
| 1. The technical environment where the services will reside and how much or how many services are required.\* | 4 | 14.81 |
| 1. I don’t know | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 27 | 0.15 | 0.13 | 8/8 | -0.13 |

#### Question 1, Correct Follow-up Discussion: This item was hard, and the discrimination findings are unpersuasive (marginal discrimination index, negative point biserial). Most participants chose B, which appears to be a viable option.

Question 1, After Wrong Answer (Obj. 3.1, 3.2, & 3.8): Which of the following best represents the approach you would recommend for determining the contract requirements?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. The procurement representatives work with the business owner to break the project into phases to enable testing at multiple points in time. | 0 | 0.00 |
| 1. The procurement representatives consult several stakeholders, including end-users, to allow for both quick development and participation of end-users.\* | 2 | 100.00 |
| 1. The procurement representatives ask the project sponsor to develop and present alternatives for consideration and selection by procurement representatives. | 0 | 0.00 |
| 1. I don’t know | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 2 | 1.00 | N/A | 0/0 | -0.04 |

#### Question 1, Wrong Follow-up Discussion: I would not interpret results based on two individuals.

Question 2, Main (Obj. 3.2 & 3.4):How would you dialogue with the IPT to agree on an acquisition strategy that will maximize the team’s chances of successfully communicating the government's requirements to industry in a manner that achieves the desired outcomes?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Explore the pros and cons of various development methods to develop and procure digital services (i.e., traditional waterfall vs. agile) and help articulate actionable, measureable and specific requirements and desired outcomes.\* | 26 | 89.66 |
| 1. Confirm the entire team agrees to the solution developed by the technical team, and resolve any specific issues team members have about the prescriptive Statement of Work before it is released to industry. | 1 | 3.45 |
| 1. Lead the team through the steps that are required to issue a solicitation that contains the government’s solution, and ask industry for the price necessary to implement the government's solution. | 2 | 6.90 |
| 1. I don’t know | 0 | 0.00 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.90 | 0.13 | 0.34 |

#### Question 2, Main Discussion: This item was easy/medium, with acceptable discrimination (marginal discrimination index but good point biserial). Each option (except “I don’t know”) was chosen at least once.

Question 2, After Correct Answer (Obj. 3.6 & 3.9): Which of the following proposal evaluation approaches would you use to procure this type of service?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Issue a task order against an existing GSA Schedule with evaluation factors that prescribe price to be significantly more important than non-cost factors (i.e., technical solution, past performance). | 1 | 3.85 |
| 1. Issue a Request for Proposal that includes requirements and specifies the Lowest Price Technically Acceptable source selection option. | 1 | 3.85 |
| 1. Issue a solicitation that uses a traditional Best Value Trade-Off method where the government considers factors other than the lowest price proposal or the highest technically rated proposal. \* | 24 | 92.31 |
| 1. I don’t know | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 26 | 0.92 | 0.02 | 7/6 | 0.28 |

#### Question 2, Correct Follow-up Discussion: This item was easy, with acceptable discrimination (marginal discrimination index due to lack of variability in responses, but good point biserial). Each option (except “I don’t know”) was chosen at least once.

Question 2, After Wrong Answer (Obj. 3.2, 3.4 & 3.8): Which of the following methods would you use to incorporate end-users into your procurement approach?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Develop a set of structured interview questions and require each IPT member to conduct interviews with end-users.\* | 1 | 33.33 |
| 1. Collaborate with IPT members to conduct secondary research on similar services that includes end-user testimonials. | 0 | 0.00 |
| 1. Ask each IPT member to ask end-users to articulate the most important characteristics of the desired service. | 2 | 66.67 |
| 1. I don’t know | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 3 | 0.33 | -0.50 | 1/2 | -0.52 |

#### Question 2, Wrong Follow-up Discussion: Since there were only three responses, I hesitate to read much in to the results. The item was medium/hard and the discrimination results are negative, likely as an artifact of the main question.

Question 3, Main (Obj. 2.2, 3.3, & 3.10):What tools would you use when communicating with the IPT regarding how to proceed with procuring these services?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Use lessons learned from previous traditional procurements to highlight the advantages and challenges for these services and collaboratively decide on the most optimal approach. \* | 22 | 75.86 |
| 1. Use established descriptions of the Contracting Officer role to highlight how the Contracting Officer selects the procurement approach in accordance with the FAR. | 0 | 0.00 |
| 1. Use the FAR and the Agency’s current Acquisition Handbook to highlight to the IPT what methods are available and have them select from those specified methods. | 7 | 24.14 |
| 1. I don’t know | 0 | 0.00 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.76 | 0.63 | 0.35 |

#### Question 3, Main Discussion: The item was easy/medium, with great discrimination results. However, Option B appears to need improvement, since it did not distract anyone.

Question 3, After Correct Answer (Obj. 3.8 & 3.10): Which of the following publications would you recommend to the IPT to help them develop their procurement strategy?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. The FAR, TechFAR, and the Agency’s current acquisition manual. | 7 | 31.82 |
| 1. The Digital Services Playbook, Tech FAR, and communications with industry.\* | 14 | 63.64 |
| 1. The Agency’s current acquisition manual, the FAR and the Digital Services Playbook. | 1 | 4.55 |
| 1. I don’t know | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 22 | 0.64 | -0.04 | 8/3 | 0.34 |

#### Question 3, Correct Follow-up Discussion: The item was medium difficulty, with variable discrimination results (negative discrimination index, though a solid point biserial).

Question 3, After Wrong Answer (Obj. 3.10): How would you incorporate lessons learned from traditional procurements as you discuss with the IPT whether a traditional procurement will work for their desired services?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Guide the IPT members to identify both what went well in past traditional acquisitions and well as what went wrong.\* | 5 | 71.43 |
| 1. Guide the IPT members to identify where the technical team made mistakes in previous traditional acquisitions and what specific steps were taken to remediate those situations. | 2 | 28.57 |
| 1. Guide the IPT members to identify prior mistakes and specific actions that will reduce the time needed to get the requirement on contract. | 0 | 0.00 |
| 1. I don’t know | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 7 | 0.71 | N/A | 0/5 | -0.29 |

#### Question 3, Wrong Follow-up Discussion: This item was medium difficulty. The discrimination results are difficult to interpret, given the low sample and the likely influence of the main question on the results.

# Scenario 6

You just made an award using an innovative procurement strategy and upon concluding the kick-off meeting, the IPT lead approaches you to thank you for your support in the Pre-Award and Award portions of the acquisition. You both agree it was not the smoothest journey - as the requirements shifted and changed multiple times along the way, and you both experienced challenges communicating the new, innovative acquisition strategy and contract delivery method to senior leadership who felt you were giving away control. However, regardless of these challenges, you both agree the government made the best decisions along the way and you believe the government's needs will be met by the awarded contractor.

Question 1, Main (Obj. 4.4, 4.5 & 4.6):Now that the contract is awarded and you are closing out the Pre-Award stage, what do you believe is the most important action to take regarding Pre-Award activities?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Confirm that all members of both the technical team and the contracting team possess copies of the appropriate Pre-Award documents for their respective files, and articulate the step-by-step process for how issues will be handled during contract execution. | 5 | 17.24 |
| 1. Facilitate a discussion regarding the Pre-Award process that includes documenting what reference materials were used and what benefits and/or distractions those materials introduced, as well as what worked and why and what did not work and why.\* | 20 | 68.97 |
| 1. Ensure any extra proposals are disposed of properly, any equipment used by the evaluation team is returned to its owner, all questions concerning the Pre-Award activities have been answered, and senior leadership is satisfied with the outcome | 3 | 10.34 |
| 1. I don’t know | 1 | 3.45 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.69 | 0.38 | 0.19 |

#### Question 1, Main Discussion: This item was medium difficulty. The discrimination results are good, and all options were chosen by at least one individual.

Question 1, After Correct Answer (Obj. 1.5, 2.1, 2.2 & 3.3): Which of the following strategies do you believe will best help you continue to educate senior leadership on innovative ways to procure digital services?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Convene events with senior leadership to highlight how innovative procurement methods directly contribute to achieving the organization's mission.\* | 14 | 70.00 |
| 1. Collaborate with your fellow procurement colleagues to create and distribute a white paper highlighting the advantages of new and improved procurement methods. | 4 | 20.00 |
| 1. Ask senior leadership in your Agency or Component what questions they have about how innovative procurements are completed and prepare responses that highlight best practices. | 1 | 5.00 |
| 1. I don’t know | 1 | 5.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 20 | 0.70 | 0.60 | 8/5 | 0.41 |

#### Question 1, Correct Follow-up Discussion: This item was easy/medium to medium difficulty. The discrimination results are excellent, and all options were chosen by at least one individual.

Question 1, After Wrong Answer (Obj. 2.5, & 3.4): Which of the following strategies do you believe will best communicate to industry that your organization is interested in changing the way they procure digital services?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Convene events for senior leadership that will enable them to receive feedback from industry regarding specific actions your organization can take to improve future procurements.\* | 5 | 55.56 |
| 1. Collaborate with fellow procurement colleagues on a white paper that includes testimonials from industry representative about the advantages of improved procurement methods. | 1 | 11.11 |
| 1. Ask industry representatives what questions they typically receive regarding how innovative procurements are completed and how they respond to those questions. | 2 | 22.22 |
| 1. I don’t know | 1 | 11.11 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 9 | 0.56 | N/A | 0/3 | -0.05 |

#### Question 1, Wrong Follow-up Discussion: This item was medium difficulty. The discrimination results are difficult to interpret, and are likely influenced by the main question. All options were chosen by at least one individual.

Question 2, Main (Obj. 1.4 & 1.6):Which of the following best describes the reason you think communicating with industry is important during the Pre-Award phase of an acquisition?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. It keeps you informed of emerging technology, capable vendors, and how those technologies are being procured for commercial organizations.\* | 28 | 96.55 |
| 1. It enables you to ensure adequate competition exists among Small Businesses to support the government’s preference for using small businesses. | 0 | 0.00 |
| 1. It enables you, as part of the professional acquisition community, to ensure industry understands unique government requirements. | 1 | 3.45 |
| 1. I don’t know | 0 | 0.00 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.97 | -0.13 | -0.21 |

#### Question 2, Main Discussion: This item was easy. It appears that one of the top scorers was the only one to get it wrong, based on the discrimination results.

Question 2, After Correct Answer (Obj. 2.5): Which of the following methods do you believe would be the most effective to communicate with industry?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Hold one on one discussions with those in industry that appear to be the experts based on your market research.\* | 4 | 14.29 |
| 1. Host an organizational industry day briefly addressing each of your organization’s requirements. | 21 | 75.00 |
| 1. Issue a Request for Information asking industry if they are capable of implementing your specific Statement of Work. | 3 | 10.71 |
| 1. I don’t know | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 28 | 0.14 | 0.16 | 7/8 | 0.18 |

#### Question 2, Correct Follow-up Discussion: This item was hard. It has acceptable discrimination, but most people chose option B, so I would spend time explaining why that’s not correct.

Question 2, After Wrong Answer (Obj. 3.6 & 4.3): What do you think would be the best type of requirement document to be used to communicate an agency’s requirements?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Issue a Performance Work Statement that includes detailed requirements with suggested measurement methods. | 0 | 0.00 |
| 1. Provide a very specific Statement of Work that prescribes the solution and how it should be implemented. | 0 | 0.00 |
| 1. Release a Statement of Objectives that articulates the product vision.\* | 1 | 100.00 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 1 | 1.00 | N/A | 1/0 | 0.14 |

Discussion: *Only one individual received this item. I would not interpret anything in the results thus far.*

Terminology Question 3 (Obj. 1.7 & 1.8): A Minimum Viable Product (MVP) is defined as:

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. The foundation of the contract requirements document. | 3 | 10.34 |
| 1. The smallest thing you can code/release that provides value for the customer.\* | 25 | 86.21 |
| 1. The first delivered software release under waterfall development processes. | 1 | 3.45 |
| 1. The first fully deployed software release on a government server. | 0 | 0.00 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.86 | 0.50 | 0.56 |

#### Terminology Question 3 Discussion: This item was easy/medium. It has very good discrimination across both indices. No one chose option D, so consider whether that distractor could be improved.

# Scenario 7

Your agency’s product owners and digital services team members are providing feedback that they find the procurement process that your agency uses for IT services too rigid. They say that they are not getting the contractor support and other services they need fast enough or at the level of quality they know is available in the marketplace. On the other hand, your acquisition leaders have spent considerable time and resources over the years making sure their IT services procurement processes meet the needs of the vast majority of IT program managers and are compliant with federal IT requirements, the FAR, and agency policy.

Question 1, Main (1.5, 2.2, 3.3, & 4.1):Which of the following most closely matches the first steps you would take to resolve these differences?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Meet with the product owners, digital services team and acquisition leaders separately to gain a greater understanding of each perspective. Explain to the product owners and digital services team how much effort has gone into developing the agency’s IT acquisition processes. | 2 | 6.90 |
| 1. Send an email to all the parties describing the product owners’ and digital services team’s issues as well as the reasons for the acquisition process and how it has been optimized. Recommend that the leaders of each group work out their differences. | 0 | 0.00 |
| 1. Bring together the acquisition leaders, product owners and the digital services team so the acquisition leaders can hear the feedback directly from the digital services team and product owners. Ask for ideas and recommendations to resolve the differences.\* | 27 | 93.10 |
| 1. I don’t know | 0 | 0.00 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.93 | 0.25 | 0.10 |

#### Question 1, Main Discussion: This item was easy. It has acceptable to marginal discrimination (better discrimination index than point biserial). No one chose option B, so consider whether that distractor could be improved.

Question 1, After Correct Answer (Obj. 1.5, 2.2, 3.3, & 4.1): Before bringing the parties together, you need to get the acquisition leaders more open to risk so they will be more willing to modify the current process. Which of the following best represents the action you would take to get the acquisition leaders to be more accepting of risks?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Help the acquisition leaders understand that the impact to the mission if the digital services team’s initiative fails. | 2 | 7.41 |
| 1. Ask the acquisition leaders to allow the digital services team to test a different approach with one, small procurement.\* | 19 | 70.37 |
| 1. Work with the acquisition leaders to gather and analyze data on the potential outcomes until they feel comfortable. | 6 | 22.22 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 27 | 0.70 | -0.04 | 8/6 | -0.03 |

#### Question 1, Correct Follow-up Discussion: This item was medium. It does not discriminate between better and worse performers, based on that, the distractors or correct option may need some work.

Question 1, After Wrong Answer (Obj. 1.5, 2.2, 3.3, & 4.1): While your actions have increased one party’s understanding of the issues, your actions did not address the risks involved. Which of the following best represents the action you would take next?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Ask each party to identify potential risks of not meeting the other party’s needs, along with ways to mitigate the risks. | 0 | 0.00 |
| 1. Help both parties create solutions that find common ground without compromising the mission or the acquisition process’s integrity.\* | 1 | 50.00 |
| 1. Identify and prioritize the risks to decide which risk is most critical to address and then inform both parties of your decision. | 1 | 50.00 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 2 | 0.50 | N/A | 0/2 | -0.19 |

Discussion: *Only two individuals received this item. I would not interpret anything in the results thus far.*

Question 2, Main (Obj. 1.5, 2.2, 3.3, & 4.1):Which of the following best represents the approach you would take when talking with each of the parties to get them to an acceptable solution?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Identify what you think is the best solution, presenting it to the product owners/digital services team first, then the acquisition leaders. | 5 | 17.24 |
| 1. Demonstrate flexibility and willingness to learn as well as determination to resolve the situation.\* | 24 | 82.76 |
| 1. Use humor to lighten the tone and show a lot of enthusiasm and willingness to meet their needs. | 0 | 0.00 |
| 1. I don’t know | 0 | 0.00 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.83 | 0.00 | -0.06 |

#### Question 2, Main Discussion: This item was easy/medium. It does not discriminate between better and worse performers, based on that, the distractors or correct option may need some work.

Question 2, After Correct Answer (Obj. 1.5, 2.2, 3.3, & 3.10): Now that you have introduced the idea of compromise, you need to encourage new ways of thinking and new behaviors. Which of the following best represents the actions you would take to promote change?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Identify a few critical behaviors that need to change first and focus only on those.\* | 10 | 41.67 |
| 1. Communicate why change is needed, focusing on the current weaknesses. | 10 | 41.67 |
| 1. Focus on changing formal systems and processes to support new behaviors. | 4 | 16.67 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 24 | 0.42 | 0.43 | 7/7 | 0.16 |

#### Question 2, Correct Follow-up Discussion: This item was medium/hard. It has good discrimination (really good discrimination index coupled with acceptable point biserial). I suggest spending some time on why A is right and B is wrong, since that was the main distractor.

Question 2, After Wrong Answer (Obj. 1.5, 2.2, 3.3, & 3.10): Your approach was not effective in influencing the parties to change. They did not feel a genuine connection with you. Which of the following best represents another way you might try to influence change?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Take a step back and talk to individual leaders to understand their interests and points of view.\* | 3 | 60.00 |
| 1. Involve other stakeholders, such as end users in the process of identifying an acceptable solution. | 1 | 20.00 |
| 1. Generate new ideas by reaching out to other agencies that are experiencing similar issues. | 1 | 20.00 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 5 | 0.60 | 0.00 | 1/1 | -0.06 |

#### Question 2, Wrong Follow-up Discussion: This item was medium. Based on the number of respondents, I hesitate to interpret further, other than to state that it appears the distractors are viable, since one person chose each.

# Scenario 8

As you continue to work with the digital services team to uncover all of their needs, you learn that they indicate that specialized coding and systems configuration skills will probably be required to accomplish the development. Market research indicates these skills are only available from a small group of companies unaccustomed to federal contracting. As you discuss these needs with your acquisition leaders, you learn that your agency is not attaining its small business goals and the small business advocates are stressing the need to hire qualified small and disadvantaged firms to do agency IT work.

Question 1, Main (Obj. 3.3):Which of the following best represents the action you would take to resolve the differences between the digital services team and the small business advocates?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Cultivate relationships with the digital service team as well as the small business advocates to identify potential champions and roadblocks.\* | 23 | 79.31 |
| 1. Advocate for the agency's cadre of existing small businesses, using the small business advocates as your champions with the digital services team members. | 3 | 10.34 |
| 1. Use the digital services executive sponsors as leverage to gain an exception for the digital services team participation in the small business goals. | 1 | 3.45 |
| 1. I don’t know | 2 | 6.90 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.79 | 0.38 | 0.17 |

#### Question 1, Main Discussion: This item was easy/medium. It discriminates well (good discrimination index and acceptable point biserial). All options were chosen by at least one person.

Question 1, After Correct Answer (Obj. 3.3): In talking to individual representatives from each group, you identify a number of challenges that will have to be addressed. Which of the following best represents the approach you would take to develop an action plan to address the challenges?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Create an action plan based on the preliminary conversations and present that plan to both parties. | 3 | 13.04 |
| 1. Ask both parties to organize an action plan that prioritizes solutions and then synthesize the two plans. | 1 | 4.35 |
| 1. Engage both parties in prioritizing key change actions based on level of importance and criticality.\* | 19 | 82.61 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 23 | 0.83 | 0.40 | 8/5 | 0.30 |

#### Question 1, Correct Follow-up Discussion: This item was easy/medium. It discriminates well based on both indices. All options (except “I don’t know”) were chosen by at least one person.

Question 1, After Wrong Answer (Obj. 3.3): Your approach made some in-roads, but it was not enough. You now realize there are a number of challenges that will need to be addressed. Which of the following best represents the next step you would take to address the challenges?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Inform your senior leaders about the challenges and ask for their ideas. | 0 | 0.00 |
| 1. Identify the challenge that could be addressed the quickest and start there. | 3 | 50.00 |
| 1. Document the challenges and techniques for addressing them in an action plan. \* | 3 | 50.00 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 6 | 0.50 | N/A | 0/3 | -0.17 |

#### Question 1, Wrong Follow-up Discussion: This item was medium/hard. It is difficult to interpret the results with the small sample size, but only distractor option (B) was chosen.

Question 2, Main (Obj. 2.7):The firms that market research indicated have the required skills, do not have the required certifications and there is great doubt whether or not they can qualify for them. Which of the following best represents how you would address this situation?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Reach out directly to the firms with the coding and systems configuration skills and convince them to become federal contractors and/or align with a small/disadvantaged business to qualify for this work. | 0 | 0.00 |
| 1. Explain to the digital services team the concerns and the associated risks to the agency without the required certifications and ask them to consider alternative solutions that do not require the specialized coding and system configurations skills. | 4 | 13.79 |
| 1. Work with your agency’s small and disadvantaged business advocates to broaden market outreach to new market entrants, while at the same time recommending appropriate mentor/protégé, prime/subcontractor relationships to handle immediate needs.\* | 24 | 82.76 |
| 1. I don’t know | 1 | 3.45 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.83 | 0.50 | 0.60 |

#### Question 2, Main Discussion: This item was easy/medium. It discriminates really well based on both indices. No one chose Option A, making it seem like that option could be improved.

Question 2, After Correct Answer (Obj. 2.1 & 3.3): You indicated that you would recommend appropriate mentor/protégé, prime/subcontractor relationships to handle the immediate needs. How would you evaluate this risk mitigation strategy?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Hold industry days, listening sessions, and market research events (virtual and face-to-face) to connect market entrants.\* | 17 | 70.83 |
| 1. Engage with the digital services team to address whether or not there are alternatives to their needs. | 4 | 16.67 |
| 1. Identify alternative contract vehicles that have vendors with the requisite capabilities that you could access through interagency agreement. | 3 | 12.50 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 24 | 0.71 | 0.00 | 8/4 | 0.35 |

#### Question 2, Correct Follow-up Discussion: This item was medium. Discrimination, according to point biserial is good, but the discrimination index is even, though only half of the bottom performers attempted this question.

Question 2, After Wrong Answer (Obj. 2.7 & 3.10): The option you selected for addressing the situation will require influencing others toward your views, even though you do not have any direct authority. Which of the following best represents the approach you would take?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Inquire and ask questions of the small business and digital services teams to lead their thinking toward potential alternatives.\* | 3 | 60.00 |
| 1. Direct and focus the discussion on the solution that you think meets the desired or expected outcomes. | 0 | 0.00 |
| 1. Inform and educate the digital services and small business teams on the advantages and disadvantages of your views. | 2 | 40.00 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 5 | 0.60 | N/A | 0/4 | -0.44 |

#### Question 2, Wrong Follow-up Discussion: This item was medium. Discrimination is not easy to interpret with the small sample, lack of top performers for comparison, and likelihood of influence by main question.

Terminology Question 4 (Obj. 3.1 & 3.5): Open Source Software:

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Is not copyrighted. | 10 | 34.48 |
| 1. Requires licensing for use.\* | 8 | 27.59 |
| 1. Does not fit the FAR definition of “Commercial Item.” | 0 | 0.00 |
| 1. Provides automatic royalty-free software applications. | 10 | 34.48 |
| 1. I don’t know. | 1 | 3.45 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.28 | -0.13 | -0.03 |

#### Terminology Question 4 Discussion: This item was hard. The item does not discriminate between poor and good performers. Options A and D were chosen most often, though no one selected the distractor C.

# Scenario 9

As part of an Open Data initiative, your agency is seeking to create a website that allows citizens to query datasets and view the results in convenient visualizations. You feel that this website cannot be built in-house, so you need to procure a vendor to create the site. The vendor needs to have expertise at retrieving data from multiple sources, generating summary statistics from the data, and creating intuitive visualizations. As is often the case, the schedule is tight and the budget is limited.

Question 1, Main (Obj. 1.6 & 1.7):Which of the following best matches your opinion about using agile development for this website?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. It provides the greatest efficiency for fixed-scope projects like this. | 10 | 34.48 |
| 1. It will provide delivery of production software at regular intervals.\* | 18 | 62.07 |
| 1. It is not the best approach for this project because it will be too costly. | 1 | 3.45 |
| 1. I don’t know | 0 | 0.00 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.62 | 0.25 | 0.13 |

#### Question 1, Main Discussion: This item was medium. Discrimination is acceptable (good discrimination index, marginal point biserial). Option A was the most used distractor, though using the phrase “best matches your opinion” indicates there really isn’t a right answer here, it is up to the individual’s opinion.

Question 1, After Correct Answer (Obj. 1.6 & 1.7): Since you have recognized the value of agile development in this situation, you now need to think about which agile method would be most appropriate. Which of the following most closely aligns with your views on the type of agile method to use for this website?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Kanban is best because it is designed for websites. | 0 | 0.00 |
| 1. Scrum will be too prescriptive for a project like this. | 10 | 55.56 |
| 1. Scrum is generally ideal for developing software application. \* | 8 | 44.44 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 18 | 0.56 | 0.17 | 7/5 | 0.30 |

#### Question 1, Correct Follow-up Discussion: This item was medium. Discrimination is good (acceptable discrimination index, good point biserial). Option B was the only distractor, chosen by more than half.

Question 1, After Wrong Answer (Obj. 1.6 & 1.7): Agile development could be useful in this situation because it can provide software production at regular intervals. If you were to use agile development for this website, what would be your decision on the type of agile method to use?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Scrum because it is generally ideal for software application development.\* | 7 | 63.64 |
| 1. Kanban because it is the only agile method that provides actionable metrics. | 1 | 9.09 |
| 1. Neither Scrum nor Kanban because both of these agile methods are too slow. | 0 | 0.00 |
| 1. I don’t know. | 3 | 27.27 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 11 | 0.64 | 0.00 | 1/3 | -0.13 |

#### Question 1, Wrong Follow-up Discussion: This item was medium, but does not differentiate based on discrimination indices (though the main question influences this). Option C was not chosen by anyone, indicating it might be improved.

Question 2, Main (Obj. 3.9):Now that you have thought a little about how to approach developing the website, you start to think about the steps that will be involved. Which of the following best represent the first step you would recommend for producing this website?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Create a minimum viable product (MVP) to test your assumptions.\* | 4 | 13.79 |
| 1. Create user stories representing each of the features of the website. | 21 | 72.41 |
| 1. Identify the technology stack for developing and deploying the website. | 3 | 10.34 |
| 1. I don’t know | 1 | 3.45 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.14 | -0.13 | -0.13 |

#### Question 2, Main Discussion: This item was hard, and it does not differentiate based on discrimination indices. Most chose distractor B, so I would verify that’s not a viable option.

Question 2, After Correct Answer (Obj. 3.9): Your first step indicates that you recommend applying Lean principles to the development of the website. How do you see agile, Lean and DevOps fitting together to develop this website?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Lean identifies the best way to integrate data from multiple sources; agile encourages collective code ownership during development; DevOps ensures the application is secure from the start. | 0 | 0.00 |
| 1. Lean motivates experimentation with MVPs; agile automates development to deliver features identified with the MVPs at regular intervals; DevOps applies agile development concepts to operations. \* | 2 | 50.00 |
| 1. Lean minimizes waste through practices that have been established for decades; agile eliminates scope creep to ensure the project stays on schedule; DevOps automates website development. | 0 | 0.00 |
| 1. I don’t know. | 2 | 50.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 4 | 0.50 | 0.50 | 1/2 | 0.17 |

#### Question 2, Correct Follow-up Discussion: This item was medium/hard. But with such a small sample, I hesitate to further interpret results.

Question 2, After Wrong Answer (Obj. 1.6 & 1.7): The first step you selected does not take into consideration Lean principles. What benefit could Lean principles have in this scenario?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. They could ensure the website is secure by emphasizing access control and encryption where necessary. | 0 | 0.00 |
| 1. They could automate website application testing to ensure it delivers the greatest value to taxpayers. | 2 | 8.00 |
| 1. They could eliminate waste by reducing the development of undesired or unnecessary features.\* | 14 | 56.00 |
| 1. I don’t know. | 9 | 36.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 25 | 0.56 | 0.52 | 7/6 | 0.24 |

#### Question 2, Wrong Follow-up Discussion: This item was medium to medium/hard. It has good discrimination (really good discrimination index and good point biserial). However, no one chose distractor A and 36% indicated they didn’t know the answer at all.

Question 3, Main (Obj. 4.5):As you continue thinking about how to develop this website, you start thinking about the software engineering practices that would be necessary. Which software engineering practices do you think are essential to the development of this website?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Web services, Service-Oriented Architecture, continuous monitoring | 11 | 37.93 |
| 1. Distributed storage, continuous delivery, relational databases | 4 | 13.79 |
| 1. Version control, continuous integration, and DevOps\* | 4 | 13.79 |
| 1. I don’t know | 10 | 34.48 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.14 | 0.38 | 0.43 |

#### Question 3, Main Discussion: This item was hard. It has really good discrimination across indices. However, 34% indicated they didn’t know the answer at all, and 38% chose distractor A.

Question 3, After Correct Answer (Obj. 4.5 & 4.6): Now that you have identified the best software engineering practices, which technologies are best suited to those software engineering practices?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Ruby on Rails, AngularJS, Play Framework | 1 | 25.00 |
| 1. Git, Jenkins, Docker\* | 1 | 25.00 |
| 1. Tableau, Microsoft SharePoint, Salesforce | 0 | 0.00 |
| 1. I don’t know. | 2 | 50.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 4 | 0.25 | N/A | 3/0 | 0.44 |

#### Question 3, Correct Follow-up Discussion: This item was hard. But with such a small sample, I hesitate to further interpret results, except that 50% (2 people) chose “I don’t know.”

Question 3, After Wrong Answer (Obj. 4.5 & 4.6): Regardless of which software engineering practice you selected, which technologies would you recommend for building this website?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Ruby on Rails, PostgreSQL, D3\* | 5 | 20.00 |
| 1. Web services, Apache Hadoop, Python | 4 | 16.00 |
| 1. Tableau, Microsoft SharePoint, Salesforce | 2 | 8.00 |
| 1. I don’t know. | 14 | 56.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 25 | 0.20 | 0.28 | 5/8 | 0.13 |

#### Question 3, Wrong Follow-up Discussion: This item was hard. It has acceptable discrimination (good discrimination index and marginal point biserial). However, 56% indicated they didn’t know the answer at all.

Question 4, Main (Obj. 4.4, 4.6, & 4.7):Before putting out a solicitation for the design and development of new software, you stop to consider if a commercial off-the-shelf solution might work. Which of the following would be the reason that you would want to use open-source software for this website instead of a commercial off-the-shelf (COTS) solution?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. It avoids rights issues associated with software on the cloud. | 2 | 6.90 |
| 1. It avoids vendor lock-in and minimizes cost and risk.\* | 23 | 79.31 |
| 1. It avoids security risks from sites like GitHub. | 1 | 3.45 |
| 1. I don’t know | 3 | 10.34 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.79 | 0.38 | 0.26 |

#### Question 4, Main Discussion: This item was easy/medium. It has good discrimination across indices, and all options were chosen, including 10% indicating they didn’t know the answer.

Question 4, After Correct Answer (Obj. 4.7 & 4.8): In addition to using open-source software, what would you include in your transition planning to minimize vendor lock-in?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. A requirement in subsequent solicitations that prospective vendors are well-versed in the established technology stack. | 1 | 4.35 |
| 1. The identification of an agency-wide technology stack and a requirement for all vendors to comply with it. | 3 | 13.04 |
| 1. The use of technology standards wherever possible and a popular, well-documented technology stack.\* | 14 | 60.87 |
| 1. I don’t know. | 5 | 21.74 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 23 | 0.61 | 0.35 | 8/5 | 0.25 |

#### Question 4, Correct Follow-up Discussion: This item was medium. It has good discrimination across indices, and all options were chosen, including 22% indicating they didn’t know the answer.

Question 4, After Wrong Answer (Obj. 4.7 & 4.8): As you do your transition planning, how would you minimize vendor lock-in and provide confidence to switch to a more qualified vendor on a re-compete, if needed?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Require and maintain copious documentation like architecture diagrams and requirements documents. | 1 | 16.67 |
| 1. Promote an open-source approach to components of the website, the data, and the methods of delivery.\* | 4 | 66.67 |
| 1. Mandate at least two weeks of knowledge transfer in the last month of the Period of Performance. | 0 | 0.00 |
| 1. I don’t know. | 1 | 16.67 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 6 | 0.67 | N/A | 0/3 | -0.15 |

#### Question 4, Wrong Follow-up Discussion: This item was medium. Discrimination is not easy to interpret with the small sample, lack of top performers for comparison, and likelihood of influence by main question.

# Scenario 10

Seven months into the development of your open data website, the President issues an executive order compelling agencies to make all data related to federal spending available within three months. A significant portion of your data is related to federal spending, but currently only some of the interactive visualizations developed relate to it.

Question 1, Main (Obj. 3.8):Which of the following best represents the process that you think should occur in response to this change?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. The Change Control Board should have an emergency meeting to determine which features will be developed over the next three months. | 2 | 6.90 |
| 1. The Product Owner should convey the new mandate to the vendor, receive feedback, and reprioritize the Product Backlog accordingly.\* | 23 | 79.31 |
| 1. The Product Owner should reprioritize the features in the Product Backlog and reduce the standards of the acceptance criteria to promote faster delivery. | 3 | 10.34 |
| 1. I don’t know | 1 | 3.45 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.79 | 0.13 | 0.12 |

#### Question 1, Main Discussion: This item was easy/medium. It has marginal discrimination across indices, and all options were chosen.

Question 1, After Correct Answer (Obj. 3.8): Once you have re-prioritized your features to reflect this schedule constraint, what is the best next step?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Apply a waterfall approach to the next three months because it is superior to agile over such a short period. | 1 | 4.35 |
| 1. Use the productivity history of the vendor to estimate how much you can get done in the next three months.\* | 22 | 95.65 |
| 1. Cease all ancillary requirements like documentation and testing. | 0 | 0.00 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 23 | 0.96 | 0.20 | 6/5 | 0.17 |

#### Question 1, Correct Follow-up Discussion: This item was easy. It has acceptable discrimination across indices, but that is likely influenced by the main question, due to the lack of variability in this one.

Question 1, After Wrong Answer (Obj. 3.8): Continuously re-prioritizing features as needed so that the digital services team is always working on the highest priority features is an agile approach to change management. Which of the following most closely aligns with the reason why you would recommend this approach to stakeholders?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. It ensures that at every point in the project you have invested in only those features that deliver the greatest value. \* | 4 | 66.67 |
| 1. It enables the entire team to get a more in-depth understanding of the features critical with this new urgency. | 1 | 16.67 |
| 1. It helps them better estimate the costs as you accelerate feature development. | 1 | 16.67 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 6 | 0.67 | 0.33 | 2/3 | -0.01 |

#### Question 1, Wrong Follow-up Discussion: This item was medium. Discrimination is variable (discrimination index is good but point biserial is not). Interpret with caution due to the small sample and likelihood of influence by main question.

Question 2, Main (Obj. 3.8, 4.7 & 4.8):To account for changes like this occurring, what agreement should you have established in the digital service contract with the vendor?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Criteria for measuring vendor progress.\* | 10 | 34.48 |
| 1. Individuals who can decide on scope changes. | 3 | 10.34 |
| 1. The type of changes that can be made within scope. | 14 | 48.28 |
| 1. I don’t know | 2 | 6.90 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.34 | 0.00 | -0.07 |

#### Question 2, Main Discussion: This item was medium/hard to hard, and it does not differentiate based on discrimination indices. Most chose distractor C, so I would verify that’s not a viable option.

Question 2, After Correct Answer (Obj. 3.8, 4.7 & 4.8): Which of the following controls would you include in your design of the solicitation to ensure maximum visibility into vendor performance?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Consistent and frequent Product Owner involvement, regular delivery of working software and code, and information radiators, reviews and demonstrations\* | 4 | 40.00 |
| 1. Regular status meetings with updates from the entire team, regular forecasts for delivery, and published traceability matrices updated with each release | 6 | 60.00 |
| 1. A detailed requirements document with strict change control mechanisms, several meetings per week, and prolific documentation of the product and process | 0 | 0.00 |
| 1. I don’t know. | 0 | 0.00 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 10 | 0.40 | 0.33 | 3/3 | 0.16 |

#### Question 2, Correct Follow-up Discussion: This item was medium/hard. It has good discrimination (good discrimination index and acceptable point biserial). No one chose distractor C, so it may be improvable.

Question 2, After Wrong Answer (Obj. 3.8, 4.7 & 4.8): Which of the following do you think would severely limit your ability to respond to this kind of change if it was included in your solicitation planning?

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. A single Product Owner | 0 | 0.00 |
| 1. Too much automation | 0 | 0.00 |
| 1. Strict change control\* | 17 | 89.47 |
| 1. I don’t know. | 2 | 10.53 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item N | Item Difficulty | Discrimination Index\* | # Top/# Bottom perf\*\* | Point Biserial\*\*\* |
| 19 | 0.89 | 0.40 | 5/5 | 0.04 |

#### Question 2, Wrong Follow-up Discussion: This item was easy/medium. It has variable discrimination (good discrimination index but not point biserial). No one chose the distractors, only two individuals indicated they didn’t know the answer.

Terminology Question 5 (Obj. 4.7): Which of the following is an example of an “exit strategy?”

|  |  |  |
| --- | --- | --- |
| **Response options:** | **N** | **Percent** |
| 1. Termination for Convenience | 16 | 55.17 |
| 1. Conducting in-depth Market Research | 0 | 0.00 |
| 1. Single year/Single Award contracts | 1 | 3.45 |
| 1. Multiple award vehicles with abbreviated option periods\* | 9 | 31.03 |
| 1. I don’t know | 3 | 10.34 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N** | **Item Difficulty** | **Discrimination Index** | **Point Biserial** |
| 29 | 0.31 | 0.25 | 0.19 |

#### Terminology Question 5 Discussion: This item was hard. It has good discrimination across indices. Most people chose distractor A and no one chose distractor B.