COMP 2831 Week Three Exercise A01029917 Andrew Hewitson

**2. What is a system requirement, and how are system requirements classified?**

A characteristic or feature that must be included in a system for it to satisfy requirements or be acceptable to the user. They are classified as either input, output, processes, performance or controls.

**3. What are JAD and RAD, and how do they differ from traditional fact-finding**

**methods? What are the main advantages of team-based methods?**

**JAD –** Joint Application Development. All users are brought in as part of the development process as active participants. It’s biggest advantage is that it provides a model of an accurate set of system requirements. More expensive and cumbersome than traditional methods but involves the user and stakeholders which gives a more complete picture of requirements and a sense of ownership to everyone involved.

**RAD –** Rapid Application Development. Useful for prototyping. Less emphasis on planning and more emphasis on an adaptive process where systems are built quickly by a team, users test the prototype and then necessary changes are made. End product is a new information system. Product can be designed quicker with significant cost savings over traditional methods. It is riskier because all requirements may not have been realized and it may not meet a company’s long-term strategy. Quality, consistency and design standards may also be sacrificed.

**5. Provide three examples each of closed-ended, open-ended, and range-of-response**

**questions.**

**Open-Ended**

1. What does everyone think about the new system?
2. Is there anything you would change?
3. How does the coffee in the break room taste?

**Closed-Ended**

1. How many minutes does it take to enter an order?
2. How many times does the system crash in a week?
3. Have you ever had to turn the computer off and back on again to make it work?

**Range-of-Response**

1. Can you rate the new system on a scale of 1 to 10? With 10 being the best.
2. When the system crashes can you rank the severity as low, medium or high.
3. Is the coffee in the break room poor, average or excellent?

**6. What are three types of sampling? Which one would you use to analyze data input**

**errors?**

* **Systematic sampling** – samples are taken from a random starting point using a fixed interval
* **Stratified sampling** – a larger group is broken down into smaller non-overlapping subgroups (i.e. by geographic region or demographic group) before final samples are chosen from each group
* **Random sampling** – a random smaller subset of samples taken from a larger set (like drawing from a hat)

To analyze data input errors, I would use a combination of stratified with either systematic or random sampling. First using stratified sampling, you would sort the information into smaller subsets (i.e. geographic regions) then by using random/systematic sampling to get an adequate number of samples from each subset.

**List the 7 fact-finding techniques and explain each one in your own words.**

1. **Sampling of Existing Documentation, forms, and database** – Gives you an understanding of the current system and gives you a base from which to start. Helps to identify existing challenges and potential problems. Sampling should be random, systematic and stratified (samples should be taken evenly across all regions of the company.)
2. **Research and Site Visits –** Talk with people involved with the system. Look at statistics. Research online, at a Library, etcetera solution for problem
3. **Observation of the work environment –** Observe current system in action firsthand. Can see what is being done. Can do workload measurements.
4. **Questionnaires –** Broad blanket survey to determine a set of facts or opinions. Can be done quickly and anonymously. Responses can be tabulated quickly. Although return rate can be low and detail and body language can be missing with little opportunity to get additional feedback.
5. **Interviews –** Face to face. Slower and more expensive but can get more details. More flexible. Allows analyst to get more feedback and interpret body language and adjust questioning accordingly.
6. **Prototyping –** Building a small-scale representation of the user’s requirements. Aids in understanding how system might work.
7. **Joint Requirements Planning –** Group meeting to analyze problem and define requirements.