Techniques for anonymous data collection using web-based surveys, while maintaining group identity

Criteria

- Sample groups consist of participants from multiple locations.
- Researcher must track origin of participant.
- For a specific origin, researcher must track student's unique identifier for grading purposes (participation grade).
- Survey must meet all IRB standards.
- Survey responses must be kept anonymous.

IMPORTANT: While the survey responses are kept anonymous, the participants’ identity is considered confidential. The researcher could, if absolutely necessary track which students participated. However, the researcher would not be able to match the participant with a response (unless there was only one participant).

Database Design

- Two tables
  - Participant ID
  - Survey Response
- Each table is indexed with a randomly generated number.
- The ID field is set to automatically sort ascending or descending to prevent data matching.

Because the data is separated into two tables, all data can be considered confidential. By adding an indexed key to each table and setting it to a randomly generated number, the participant id (we’ll call it the Psuedo-ID) cannot be matched to the responses. For example, a particular respondents data would be stored as:

TABLE: PARTICIPANT

<table>
<thead>
<tr>
<th>ID</th>
<th>PARTICIPANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>999382828</td>
<td>mjr97001</td>
</tr>
<tr>
<td>389538932</td>
<td>cmn98001</td>
</tr>
</tbody>
</table>

TABLE: RESPONSE

<table>
<thead>
<tr>
<th>ID</th>
<th>Q1</th>
<th>Q2</th>
</tr>
</thead>
<tbody>
<tr>
<td>528952487</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>325215244</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Diagram 1. NOTE: These tables are set to sort descending
**End-user Interface**

In accordance with IRB standards, the end-user must be informed of the intent, benefits, risks, and contact information for the research. This is handled through an informed consent form. Web-based surveys make obtaining a signed form very difficult by normal standards. To accommodate the electronic methods of this research the informed consent form would require that the user enter a “unique identifier” and click on an ACCEPT button to proceed into the survey. The following is an example of a web-based informed consent form:

![Diagram](Diagram 20: Informed Consent with Anonymity of Data)

The process may look like: