Online Activity Logs: Low Cost and High Impact for Multisite Evaluations

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**CryptoClub Website:** [www.cryptoclub.org](http://www.cryptoclub.org)

The State and Local Evaluation Center at American Institutes for Research (AIR) currently is conducting the formative evaluation of CryptoClub: Cryptography and Mathematics Afterschool and Online, which was developed by a team of mathematics professors at the University of Illinois at Chicago and is funded by a National Science Foundation Informal Science Education grant. To determine to what extent and with what fidelity CryptoClub is being implemented in informal settings, the AIR team designed an online activity log to efficiently collect implementation data from more than 20 CryptoClub sites across the United States. This presentation describes a process for developing an online activity log to serve as a critical tool for accurately describing and measuring implementation across multiple sites.

# Why Use an Activity Log?

* You need to collect timely data on an ongoing basis.
* You are working with settings and leadership experience that vary by site (e.g., during school versus after school).
* You are working with a program that is not highly prescriptive (i.e., leeway regarding what to implement and when).
* An activity log can replace the need for site visits and observations.

# Types of Data to Track or Collect

* What does your client need to know?
* What are the key elements to track on a daily basis?
* How will you ultimately present the data or roll it up?
* **CryptoClub Example:** cryptography topic, math topic, club activity (see Figure 1)

# How to Implement Your Online Log

* Free online resources: SurveyMonkey, Google Docs
* **CryptoClub Example:** Microsoft SharePoint Form created by a database specialist

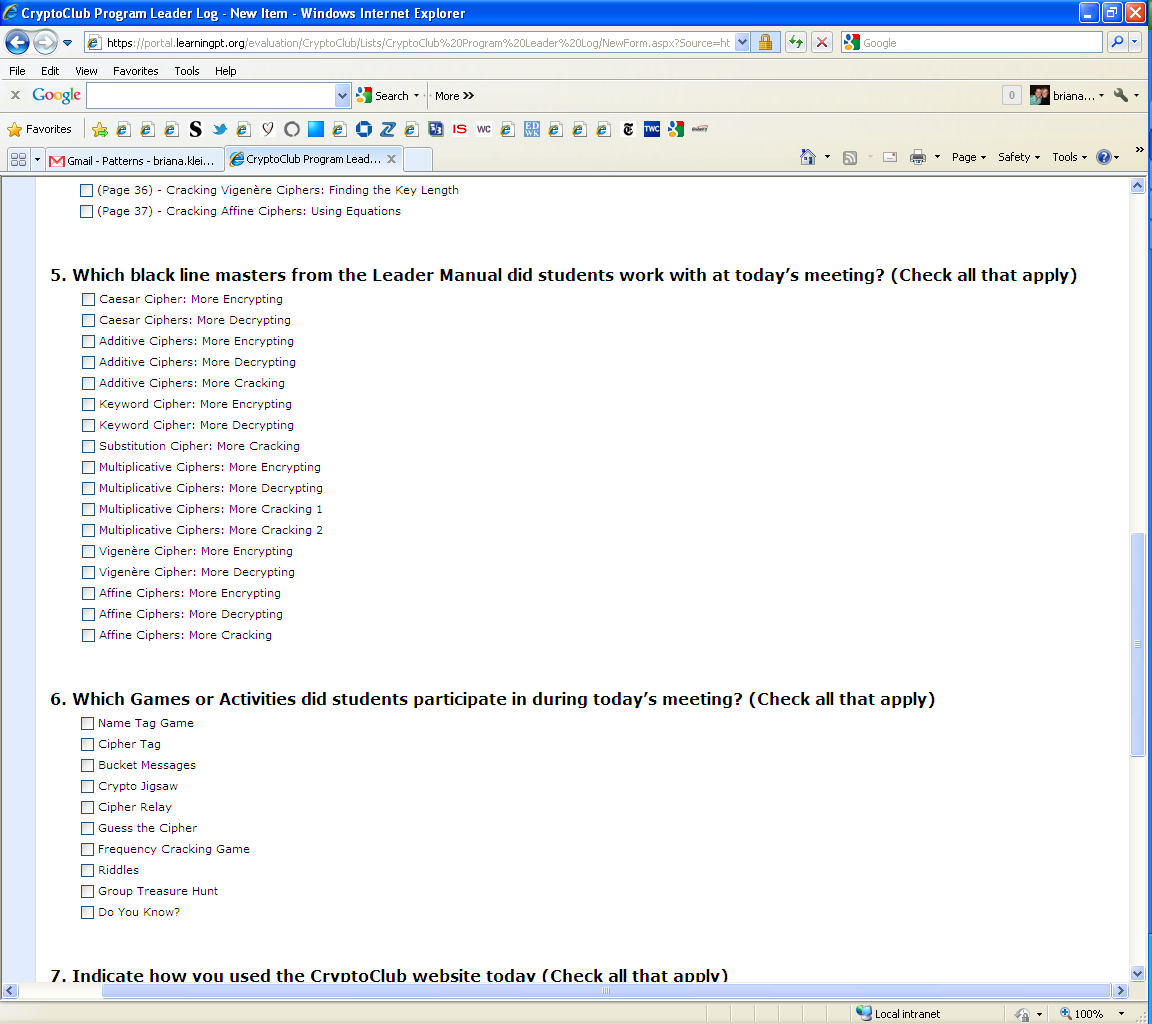
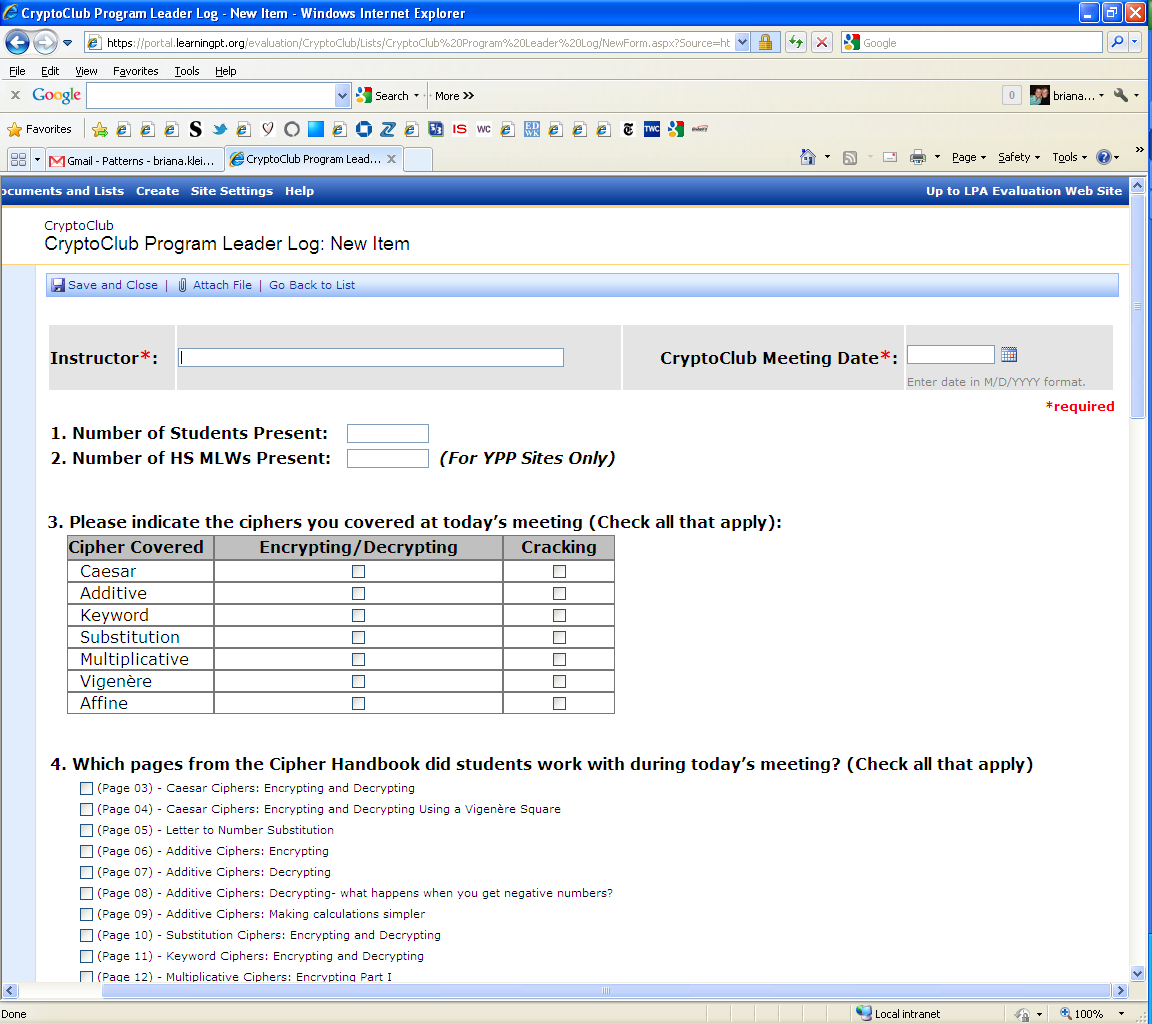
# How to Boost Response Rates

* Communicate expectations about frequency of submitting logs (i.e., daily, weekly).
* Provide participants with an orientation to the activity log process.
* Develop a method for tracking and monitoring (e.g., compliance reports to identify noncompleters).
* Generate e-mail reminders with log-in information and a link to the website.
* Follow up with noncompleters identified through compliance reports.
* Provide incentives for submitting a predetermined number or percentage of logs.
* Create a policy for backfilling.
* **CryptoClub Example:** weekly compliance reports and weekly e-mail reminders

# How to Analyze the Data

* Calculate response rates, and set a criterion for inclusion (e.g., minimum response rate).
* Aggregate data.
* Compare with other available data (e.g., surveys, interviews).

Figure 1. CryptoClub Example: Program Leader Activity Log



# How to Present the Data

* Tables, charts, figures
* **CryptoClub Example:** See Table 1.

Table 1. Number of Sessions Spent on Each Cipher (Activity Logs, *N* = 16)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Cipher | 0 sessions | 1–2 sessions | 3–5 sessions | 6–8 sessions | 9 or more sessions |
| Caesar | 0.0% | 6.3% | 37.5% | 43.8% | 12.5% |
| Additive | 0.0% | 18.8% | 50.0% | 6.3% | 25.0% |
| Keyword | 12.5% | 43.8% | 37.5% | 6.3% | 0.0% |
| Substitution | 43.8% | 25.0% | 25.0% | 6.3% | 0.0% |
| Multiplicative | 43.8% | 25.0% | 18.8% | 12.5% | 0.0% |
| Vigenère | 50.0% | 31.3% | 12.5% | 6.3% | 0.0% |
| Affine | 81.3% | 6.3% | 12.5% | 0.0% | 0.0% |