

Digital Collaboration and Classroom Practice

Educator Use of ARIS Connect



Nina Siman
Shifra M. Goldenberg
Thomas Gold

June 2014

APPENDIX A: DATA COLLECTION AND ANALYSIS

This brief is based on a qualitative study of ARIS Connect use in NYC schools. We conducted fieldwork in nine schools, where we interviewed administrators (principals, assistant principals, data specialists, and other staff) and conducted focus groups with teachers. Using semi-structured interview and focus group protocols (found in Appendix C), researchers asked the subjects questions about if and how they use Connect, what they perceive as the system's utility for informing their practice, the challenges they experienced using it, and any recommendations they have to improve Connect. Researchers also asked questions about teachers' use and perceptions of other online tools that are not a part of ARIS but perform functions similar to Connect.

Data Collection/Sample

We sampled middle schools that demonstrated above-average ARIS and ARIS Connect usage to ensure that our fieldwork would elicit a large number of use cases. Using the 2010–2011 clickstream records, we identified 30 schools that used ARIS Connect for substantially more than the average of 13 hours per school per year (see Gold et al. 2012 for clickstream data analysis methodology). We narrowed this list to schools that also demonstrated high overall ARIS use (not just Connect use). To prevent our research from burdening schools that may have been engaged in intensive turnaround efforts, we dropped from our sample schools performing well below the citywide average (as evidenced by low 2012 NYC Progress Report scores), leaving 24 schools.

We invited all 24 schools to join in our study, with the goal of recruiting 10 schools. Nine schools, in three of the city's five boroughs (the Bronx, Brooklyn, and Queens), agreed to participate. They represent a wide range of above-average Connect usage, from 38 to 100 hours total for the 2011–2012 school year. Many of the other 15 schools we contacted did not respond to our requests or expressed concerns about the time commitment, as they were busy preparing for the New York State Assessments in April, 2013. To accommodate some schools, we offered to conduct our fieldwork after the state tests (which we ultimately did for one school).

We found that background characteristics for the schools in our study did not differ in most ways from all other middle schools in the city, although they were statistically different in their use of ARIS and ARIS Connect, which was part of our research design. Three of the nine sites visited for this brief were also fieldwork sites for our 2012 report.

The research team visited the nine schools over a two-month period from March 1, 2013 through May 28, 2013, with no visits conducted in April, when NYS assessments were being administered.

We visited each school once, for approximately two to three hours. School visits included interviews with principals, assistant principals, and/or data specialists, as well as a focus group with three to 13 teachers. The principal or another administrator was responsible for selecting the teachers to participate in the focus group. We did not specifically ask for teachers with particularly high or low ARIS or ARIS Connect usage.

One or two researchers from the Research Alliance conducted each site visit. When two researchers were present, one asked questions from the protocol and the other took detailed notes. All interviews and focus groups were audio recorded. We conducted focus groups with a total of 46 teachers, and interviews with seven principals, six assistant principals, and two other administrators (a data specialist and an instructional coach). After each visit, the researcher(s) drew up reflection memos using the detailed notes, which identified key themes and issues raised during the interview and focus group.

Analysis

We analyzed all of the reflection memos using ATLAS.ti, qualitative data analysis software. We coded recurring themes in the memos and organized them into categories, including overall ARIS usage; uses of ARIS Connect; barriers to using Connect; uses of other online tools; recommendations for changes in Connect; etc.

To ensure inter-rater reliability, both researchers coded the same documents and then compared their results. When the coding process did not seem aligned between the two researchers, we discussed and, when appropriate, revised the coding structure. After identifying dominant themes, the researchers returned to the audiotapes to identify relevant quotes, which are integrated throughout this report as evidence of the themes and issues that emerged in interviews and focus groups.

Strengths and Limitations of Our Method

Choosing a sample of schools with high levels of ARIS use allowed us to meet educators with significant use of ARIS Connect, in order to better understand the ways they use Connect and how it may have supported their work inside and outside of the classroom. However, the small sample size does, to a certain degree, minimize our capacity to generalize our findings about ARIS across NYC. Still, we are confident that we have captured a meaningful and representative sample of educator views on ARIS Connect. Given the very low Connect usage at most schools, and because we spoke to educators with a range of experiences and perceptions of Connect, we believe that our findings can illuminate important lessons about this first-of-its kind effort in NYC schools.

Interviews and focus groups allowed us to capture nuances of how teachers and administrators perceive their experience with and the utility of ARIS Connect. Our protocols provided the means to elicit rich descriptions that would be difficult to obtain through normal survey methods or administrative data. We also benefited from talking to a group of teachers who represented a broad range of subjects taught and years of experience.

One limitation to our methods is that the teachers who participated in the focus groups were selected by the principals in each of the nine schools. Principals tended to use two different sets of criteria to select teachers for our focus groups. They chose either 1) teachers who were available at the correct time, giving us a broader sampling of Connect usage, or 2) Inquiry teams, who were all familiar with Connect. While this was the most efficient process for this study, and our focus groups overall included teachers with a wide range of experience with ARIS and ARIS Connect, it is possible that the teachers we met may not be representative of all teachers in these schools. In addition, ARIS Connect may be used quite differently for teaching different grade levels, and so our sample of middle school educators may have excluded perspectives we would have heard from elementary or high school educators.

It is also important to point out that we identified our school sample using ARIS data from the 2010–2011 school year, because ARIS usage data for the school year 2011–2012 was not yet available to us. This meant that our site selection was based on data from two years prior to our fieldwork, which may not have been representative of current ARIS usage. It is possible that some of the schools we visited were no longer above-average Connect users. It is also possible that we missed fruitful fieldwork sites where Connect usage spiked in 2011–2012. Promisingly, in spite of these potential complications, in all of our site visits, we did find Connect users, indicating that the analysis we used to select our sample was successful.

APPENDIX B: SUPPLEMENTARY TABLES

Table B-1: ARIS Total Sessions and Duration by School Type, All ARIS Users, 2010–2012

	2010–2011			2011–2012		
	Elementary Schools	Middle Schools	High Schools	Elementary Schools	Middle Schools	High Schools
Sessions						
Total sessions	429,627	308,484	355,743	446,104	347,730	303,611
Average sessions per school	722.1	1,177.4	951.2	733.7	1,347.8	788.6
Duration						
Total hours	22,716	20,664	26,561	21,026	20,468	19,459
Minutes per school	2,290.7	4,732.2	4,261.1	2,074.9	4,760.0	3,032.6
Average minutes per session	3.2	4.0	4.5	2.8	3.5	3.8
Number of schools	595	262	374	608	258	385

Source: Research Alliance calculations from ARIS usage data and human resources data provided by the New York City Department of Education.

Table B-2: ARIS and ARIS Connect Sessions and Session Duration by Job Type, 2010–2012

	2010–2011				2011–2012			
	Teachers	Administrators	Support Staff	Total	Teachers	Administrators	Support Staff	Total
ARIS								
Sessions								
Total sessions	1,043,586	180,358	115,897	1,450,122	1,016,146	202,583	139,189	1,458,976
Sessions per user	19.6	38.4	28.1	21.0	18.8	41.9	37.9	20.8
Duration								
Total hours	86,100	15,559	4,925	111,510	74,452	13,400	4,823	96,720
Minutes per user	96.9	198.5	71.5	96.7	82.8	166.2	78.7	82.9
Average minutes per session	5.0	5.2	2.5	4.7	4.4	4.0	2.1	4.0
ARIS Data Areas, All ARIS Users								
Total hours	69211.6	12206.9	4528.4	90,184	60949.9	10115.5	4490	79,092
Minutes per user	77.9	155.8	65.8	78.2	67.8	125.5	73.3	67.8
ARIS Connect, All ARIS Users								
Total hours	16,889	3,352	397	21,326	13,502	3,285	333	17,628
Minutes per user	19.0	42.8	5.8	18.5	15.0	40.7	5.4	15.1
Number of ARIS users	53,330	4,702	4,131	69,190	53,941	4,838	3,675	70,036
ARIS Connect, Active Connect Users								
Minutes per user, actual users	26.5	47.7	10.0	26.5	21.6	45.1	9.3	22.3
Total hours	16,889	3,352	397	21,326	13,502	3,285	333	17,628
Percent of all ARIS users	71.8	89.7	57.4	69.9	69.5	90.4	58.7	67.7
Number of Connect users	38,279	4,219	2,370	48,344	37,513	4,373	2,157	47,394

Source: Research Alliance calculations from ARIS usage data and human resources data provided by the New York City Department of Education.

Notes: Total hours includes combined time of all users on ARIS. Per-user data reflects totals divided by total number of users. ARIS Data areas include data and reports from the “My Students” and “Reports” tabs in ARIS. Support staff includes administrative employees, guidance counselors, or other users who did not match human resources files (most likely outside consultants or other assistants.)

APPENDIX C: INTERVIEW AND FOCUS GROUP PROTOCOLS

School Principal/Administrator Interview Protocol

Statement to Subjects

The Research Alliance of New York City Schools (RANYCS) at New York University in partnership with the NYC Department of Education is conducting research on the Achievement Reporting and Innovation System (ARIS). The goal of this study is to learn more about how ARIS is used and what conditions allow teachers and administrators to understand, use, and learn from the data to which they have access.

As part of this study, RANYCS researchers will be interviewing principals and other administrators. Interviews will take approximately one hour. In addition, our team will review school-related data, such as student performance data and how long teachers at the school have been teaching.

RANYCS will use the information participants provide for research purposes only. We will keep confidential the identities of those who participate in the research and will not attribute any comments to any specific individuals or schools. Your participation in this study is completely voluntary. You may request at any time that we stop the interview.

Do you have any questions?

Background

- How long have you been a principal?
- A principal at this school?

Use of ARIS

- How would you describe your overall use of ARIS?
 - Light
 - Heavy
 - Average
- When was the last time you received training in ARIS?
- What other student information systems do you use?
 - DataCation
 - Acuity
 - Engrade/other teacher-parent portals
 - Other curriculum-specific tools

List tools:

Use of ARIS Connect

- How would you describe your use of ARIS Connect?
 - Weekly

- Monthly
 - Bi-yearly
- Which Connect function do you use the most?
 - *If no answers, prod*
 - Inquiry spaces
 - My Communities
 - Searches
 - Blogs or wikis
- In the last month, have you done any of the following:
 - Search for resources?
 - What did you search for?
 - Post a resource?
 - What did you post?
 - Start a Community?
 - Which one/what topic?
 - Create or maintain a blog or wiki?
 - What topic?
 - Maintain/update your school's Inquiry page?
- Do you feel comfortable/safe commenting on Connect?
 - *Prod: Do you make any comments on Connect?*
- Do you or your teachers use other social media tools for your work?
 - Edmodo
 - EdWeb.net
 - Classroom 2.0
 - ASCD EDge
 - Others
- Are you a member of any online communities?
 - Discovery Educator Network
 - Moodle
 - BrainPOP
 - Edutopia
 - PBS Teachers
 - Others
- What do you see as the primary benefit of using ARIS Connect?
- What are the major obstacles that prevent you from using Connect?
 - *If no answers, prod*
 - Usefulness of the content
 - User experience
 - Privacy concerns
 - Time
 - Other

- The DOE is investing in a new education data portal that will replace ARIS. This portal will most likely have Web 2.0 functionality that is similar to Connect. If you could recommend a change or an enhancement that would improve upon the current Connect program, what would you choose?

Teacher Focus Group Protocol

Statement to Subjects

The Research Alliance of New York City Schools (RANYCS) at New York University in partnership with the NYC Department of Education is conducting research on the Achievement Reporting and Innovation System (ARIS). The goal of this study is to learn more about how ARIS is used and what conditions allow teachers and administrators to understand, use, and learn from the data to which they have access.

As part of this study, RANYCS researchers will be conducting focus groups with teachers. The focus groups will take approximately one hour. In addition, our team will review school-related data, such as student performance data and how long teachers at the school have been teaching.

RANYCS will use the information participants provide for research purposes only. We will keep confidential the identities of those who participate in the research and will not attribute any comments to any specific individuals or schools. Your participation in this study is completely voluntary. You may request at any time to leave the focus group.

Do you have any questions?

Let's start with a couple of brief questions about your experience as a teacher.

Background

- How long have you been a teacher at this school? How long have you been teaching?

List range of years:

- What subjects do you teach?

List subjects:

Let's now talk a little about your use of ARIS and other education data tools in general.

Use of ARIS

- How would you describe your overall use of ARIS?
 - Light
 - Heavy

- Average
- When was the last time you received training in ARIS?
- What other student information systems do you use?
 - DataCation
 - Acuity
 - Engrade/other teacher-parent portals
 - Other curriculum-specific tools

List tools:

Use of ARIS Connect

- How would you describe your use of ARIS Connect?
 - Weekly
 - Monthly
 - Bi-yearly
- Which Connect function do you use the most?
 - *If no answers, prod*
 - Inquiry spaces
 - My Communities
 - Searches
 - Blogs or wikis
- In the last month, have you done any of the following:
 - Search for resources?
 - What did you search for?
 - Post a resource?
 - What did you post?
 - Start a Community?
 - Which one/what topic?
 - Create or maintain a blog or wiki?
 - What topic?
 - Maintain/update your school's Inquiry page?
- Do you feel comfortable/safe commenting on Connect?
 - *Prod: Do you make any comments on Connect?*
- Do you use other social media tools for your work?
 - Edmodo
 - EdWeb.net
 - Classroom 2.0
 - ASCD EDge

- Others
- Are you a member of any online communities?
 - Discovery Educator Network
 - Moodle
 - BrainPOP
 - Edutopia
 - PBS Teachers
 - Others
- What do you see as the primary benefit of using ARIS Connect?
- What are the major obstacles that prevent you from using Connect?
 - *If no answers, prod*
 - Usefulness of the content
 - User experience
 - Privacy concerns
 - Time
 - Other
- The DOE is investing in a new education data portal that will replace ARIS. This portal will most likely have Web 2.0 functionality that is similar to Connect. If you could recommend a change or an enhancement that would improve upon the current Connect program, what would you choose?

List ideas:

The **Research Alliance** for
New York City Schools

285 Mercer Street, 3rd Floor | New York, New York 10003-9502
212 992 7697 | 212 995 4910 fax
research.alliance@nyu.edu | www.steinhardt.nyu.edu/research_alliance

The Research Alliance for
New York City Schools conducts
rigorous studies on topics that
matter to the city's public schools.
We strive to advance equity and
excellence in education by
providing non-partisan evidence
about policies and practices that
promote students' development
and academic success.