

Building ArtsSmarts' Research Capacity: An Interim Report

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Contents

About ArtsSmarts.....	3
About ArtsSmarts' Researcher-in-Residence.....	3
Chapter 1 Introduction.....	4
ArtsSmarts Research-in-Residence Project	4
Chapter 2 Situating ArtsSmarts as a Research Organization	6
Dimensions.....	6
1. Origins and Evolution	6
2. Services and Supports	6
3. Sharing Knowledge	6
4. Success	6
5. Innovation	7
6. Research.....	7
Methodology	7
Analysis	7
Implementation	7
Next Steps.....	8
Chapter 3 Building an Infrastructure for Research.....	9
Chapter 4 National Quantitative Research:	10
Current Status	10
Next Steps.....	10
Chapter 5 National Qualitative Research	12
Levels, Layers or Groups?.....	12
Collaboration – 'C'	13
Inquiry Research – 'IR'	13
Framework – 'F'	13
Research for Action.....	13
Research Accountability.....	14
Implementing CIRF: Working with Teachers-Artists-Students	14
Next Steps.....	15
Chapter 6 Summary and Plans	16
Future Questions	16
Resources	17

About ArtsSmarts

ArtsSmarts was founded in 1998 by The J.W. McConnell Family Foundation, on the premise that engaging young people in artistic activity is critical to their evolution as creative thinkers. Since its inception, ArtsSmarts has been demonstrating the effectiveness of integrating the arts into the school curriculum as a way of making core curriculum more relevant and meaningful to students. The program invites professional artists to collaborate with classroom teachers, infusing art throughout the provincial curriculum; teaching, for example, history through drama, math through dance, and science through music.

ArtsSmarts inspires collaboration among arts, education and community agencies, and invests strategically in creative learning networks at the local, regional, provincial and national levels to build capacity for arts and education. ArtsSmarts projects capture the imagination and build the confidence of disengaged young people and create an enthusiastic atmosphere of active learning among students, teachers, and artists.

About ArtsSmarts' Researcher-in-Residence

ArtsSmarts has been awarded a Researcher-in-Residence grant from the Canadian Council on Learning (CCL), to assist ArtsSmarts in building its research capacity and developing a research agenda that will enable ArtsSmarts to make evidence-informed decisions.

ArtsSmarts has contracted Saad Chahine, a Ph.D. candidate in Developmental and Educational Psychology in the department of Human Development and Applied Psychology at the Ontario Institute for Studies in Education of the University of Toronto (OISE/UT). The focus of his research relates to concepts of validity and how interpretations are supported by qualitative and quantitative evidence.

Chapter 1 Introduction

In 2006, the Canadian Council on Learning (CCL) created an initiative to build Canada's capacity to conduct research on learning, inviting not-for profit organizations to apply for Researcher in Residence grants¹. ArtsSmarts was one of the successful grant applicant organizations.

Saad Chahine was hired by ArtsSmarts to take on the researcher-in-residence role. Several meetings with ArtsSmarts' Executive Director, Annalee Adair, and his PhD supervisor, Dr. Lorna Earl of Aporia Consulting Ltd., resulted in the development of a work plan (Appendix A) and an outline of the various activities to be carried out by the researcher-in-residence. The work plan was approved by CCL, and the residency commenced in June 2007.

What follows is an interim report on the residency, documenting what has been accomplished since June 2007, and providing direction for continuing to build ArtsSmarts' research capacity going forward.

ArtsSmarts Research-in-Residence Project

ArtsSmarts is utilizing the research-in-residence project to help build research capacity within the organization. Through many internal research studies over about eight years of operation, and a recent synthesis of these studies², it became glaringly apparent that ArtsSmarts needs to strengthen its capacity to collect, analyze, and interpret the evidence of its benefits. Upon further investigation of external research, ArtsSmarts determined that by understanding the impacts of its own program, it will greatly add to the knowledge base on the impacts of arts-based intervention programs on student learning. ArtsSmarts believes that it is imperative to become a research based organization, not only conducting and disseminating research on the ArtsSmarts program, but acting as a research "hub" for other stakeholders in education, arts and learning.

The goal of the research-in-residence project is to build this foundation within the ArtsSmarts program. After four months of research residency, the following five major areas have emerged as needs for ArtsSmarts to address on the path to becoming a research focused organization. Each of the five major areas includes a sampling of questions being pursued.

- 1. Situating ArtsSmarts as Research Organization (*Chapter 2*)**
 - How is ArtsSmarts unique and how is it similar to other arts-based organizations?
 - What are the similarities and differences in research, and research methodologies?
 - How can ArtsSmarts situate itself as a research hub amongst these organizations?

- 2. Building an Infrastructure for Research (*Chapter 3*)**
 - a. What are the components that ArtsSmarts needs in order to be a research entity?
 - b. What are the ethical limitations?
 - c. How will the ArtsSmarts name be used by partners doing research and what are the restrictions?
 - d. Do we need to develop a code of research protocol for those doing research within the ArtsSmarts program?
 - e. Who will oversee the research being conducted?

- 3. National Quantitative Research: Pre/Post Student Engagement Questionnaires (*Chapter 4*)**
 - What are the results from the first administration of the survey?
 - What are the psychometric properties of the questionnaires used for this study?

¹ For more information on the Research-in-Residency grant visit: <http://www.ccl-ca.ca/CCL/Research/ResearcherInResidence>

² Hume, K (2006). *Engaged in Learning: The ArtsSmarts Model*, Ottawa, ON: ArtsSmarts:
<http://www.artssmarts.ca/media/en/EngagedInLearningWEB.pdf>

- To what extent can the questionnaire determine the effects of the ArtsSmarts learning model on student engagement?
- What changes have to be made to draw generalizations based on the questionnaires?
- When established as a high-quality tool, what are the procedures of analysis for others to use this instrument?

4. National Qualitative Research: Collaborative Inquiry Research Framework (*Chapter 5*)

- How can ArtsSmarts document what happens in the classroom, and what teachers, artists and students gain from their experiences?
- How can these experiences be shared with various key ArtsSmarts personnel?
- How can the different groups within the ArtsSmarts network focus on a specific research purpose, collect and use information?
- What are the mechanisms that are needed to allow for data collection analysis and dissemination?
- In which ways can ArtsSmarts develop the research framework so that it is flexible enough to be used by different partners and within different fora?

5. Summary and Plans (*Chapter 6*)

- What are the next questions that ArtsSmarts needs to pursue in order to become a leader in arts-integrated education?
- Who will ArtsSmarts connect with to study ArtsSmarts' long-term impacts on learning?
- Who will ArtsSmarts connect with to study ArtsSmarts' long-term impacts on educational policy and practice?

These five major areas are being investigated simultaneously, and within this report a chapter is devoted to each area. Each chapter includes an introduction, the current status of implementation, and a description of the next steps towards completion. The final chapter of this report is devoted to outlining a revised work plan for the time remaining in the research-in-residence grant.

Chapter 2 Situating ArtsSmarts as a Research Organization

Developing a methodology to assess and evaluate the multiplicity of arts-based organizations is a daunting challenge. To start with there are very few methodologies used to research not-for profit organizations, and the methodologies employed are often borrowed from other fields and are not always applicable. Rohit Verma, Curtis McLaughlin, Robert Johnston and William Youngdahl (2005) wrote an editorial titled Operations management in not-for-profit, public and governmental services: Charting a new research frontier, for the *Journal of Operations Management*³. Within this article they contrast the high levels of funding provided to not-for-profit organizations in the US with the lack of research methodologies available to research these ventures. Within the body of the article they discuss a call for submissions inviting research about not-for-profit organizations, in particular interdisciplinary methodology pieces. The editor received 55 submissions, of which seven were selected for a special issue. Of the seven accepted submissions, one was about the arts⁴. The authors used a multivariate statistical technique to analyze an on-line survey of ticket purchasing at the Chicago Symphony Orchestra - a technique not fully applicable to ArtsSmarts.

Presented in this chapter are the initial steps to developing a methodology for investigating similarities and differences among arts-based organizations. At a meeting with Annalee Adair and Dr. Lorna Earl in September 2007, the researcher developed dimensions to be examined that are important for ArtsSmarts to deepen its understanding about its operations. These dimensions can also be more broadly applied in organizational research. A summary of the dimensions and the methodology being applied are outlined below.

Dimensions

1. Origins and Evolution

The summary will include a description of each organization in terms of its origins and evolution into the type of organization it is today, taking into account funding structure, governance and number of staff.

2. Services and Supports

Also included in the summary will be a description of each organization's work with schools, how they integrate arts and education, what services and supports that are offered, and how this links to the funding they receive and provide. We will also determine how the organization documents arts-integration and then how they maintain records in order to disseminate learning's from the different projects.

3. Sharing Knowledge

We will identify how knowledge is shared within and outside the organizations. What is their purpose for sharing knowledge, and how do they know they have met this purpose? When does the knowledge sharing occur, and what format does it take?

4. Success

What do the organizations use as measures of success? How do they measure their various undertakings, and how to they use the information gathered?

³ Verma, R., McLaughlin, C., Johnston, R., & Youngdahl, W. (2005). Operations management in not-for-profit, public and government services: Charting a new research frontier. *Journal of Operations Management*, 23, 117-123.

⁴ Olson, J.A., Belohlav, J.R., and Boyer, K.K. (2005). Operational, economic and mission elements in not-for-profit organizations: the case of the Chicago Symphony Orchestra. *Journal of Operations Management*, 23, 125-142.

5. Innovation

How do the different organizations define innovation? How do they foster and promote innovation in the organization, and in learning with students?

6. Research

What are the different kinds of research that are carried out in the organizations? How does this research relate to what is actually practised in the organization? What are the various research agendas (if they exist), and how are they disseminated to stakeholders?

Methodology

There are six steps in the methodological design for this review:

1. Conduct a web search of arts-based organizations with interest and/or involvement in education.
2. Describe the arts-based organizations in relation to missions, actual administrative organization, how integration is carried out, and what is provided to schools.
3. Identify organizations that are actually working in partnerships with schools.
4. Develop case summaries/profiles for the “short list” of organizations working in partnerships with schools using the major dimensions outlined above.
5. Compare and contrast the organizations based on dimensions.
6. Situate the arts-integration approaches within innovation and change in education literature.

Analysis

Once the individual cases summaries are developed based on the six dimensions for each organization, they will be examined in relation to an innovation framework. The innovation framework is housed in the research that Canadian Education Association⁵ is currently carrying out to define and describe innovation in Canadian education and schooling.

The final product will offer an understanding of arts-based organizations in relation to innovation. From this research we hope to understand where ArtsSmarts is situated, and develop a research agenda to meet a vision that shapes the future of the organization.

Implementation

A wide search of arts-based organizations produced a list of 18 different organizations across the world plus ArtsSmarts. In compiling this list, a discovery was made that arts-based organizations (similar to ArtsSmarts) are a phenomenon of the western world. These organizations exist in Canada, the US, UK and Australia. The case summaries for these 18 organizations are provided in Appendix B. An “eyeball” analysis makes it is clear that ArtsSmarts stands as a unique entity among these other arts-based initiatives.

⁵ For further information contact Canadian Education Association at: <http://www.cea-ace.ca/>

Next Steps

The next steps are to complete the analysis, and examine the case summaries to determine where ArtsSmarts is situated among the other organizations. This chapter will then be written as a report for ArtsSmarts to keep and disseminate. This research will help ArtsSmarts understand where it stands in relation to other organizations, what the gaps in research are and how it can take the lead in addressing these needs. It will also be written in an academic format and submitted to the Journal of Operations Management⁶ and a shorter version will be written for Nonprofit Management & Leadership⁷, a more professionally oriented journal.

⁶ http://www.elsevier.com/wps/find/journaldescription.cws_home/523929/description#description

⁷ <http://www.josseybass.com/WileyCDA/WileyTitle/productCd-NML.html>

Chapter 3 Building an Infrastructure for Research

After extensive consultations on the process used in collecting analyzing and disseminating information, including with Dr. Gail Burnaford, a lead researcher with Chicago Arts Partnerships in Education (CAPE)⁸, it became apparent that ArtsSmarts needs to have certain structures in place in order to become a more research focused organization. The consultations generated the following list of items that are currently being developed or are planned for development:

1. Methods of collecting data, analysis and dissemination about ArtsSmarts

This is being addressed in two ways:

- Quantitatively, through pre-and post-questionnaires on student engagement (see Chapter 4 of this report for current progress)
- Qualitatively, through the “Collaborative Inquiry Research Framework” (CIRF) template (see Chapter 5 of this report for current progress).

2. Mechanisms for retaining project data, and ensuring its accessibility to all stakeholders (e.g. teachers, artists, students, arts organizations, Ministries, etc.)

ArtsSmarts is currently working with a web design company to develop and maintain the ArtsSmarts website (www.artssmarts.ca), and is considering proposals to enhance the ArtsSmarts website to become a system of storing and accessing project and general research data. The web-based approach is attractive, as Network partners would be able to access data autonomously.

Alternatively, the research-in-residence could develop a system of collecting and organizing projects for quick access. However, this approach would not be as accessible as the web-based approach.

3. Systems/processes to ensure that ArtsSmarts research is conducted in accordance with the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans⁹.

At the 2006 ArtsSmarts annual meeting, a Research Advisory Committee was established, with one of its purposes being to review and provide advice or recommendations on specific research proposals. A meeting will be scheduled in early 2008 to determine how this committee may take on the ethical conduct process challenge. Some issues on the agenda are:

- Do we have the ethical right to use data collected from students and analyze it for a public report?
- What will be the process for partners who want to use the data to develop their own reports?
- What are the ethical considerations, if any, for Universities who want to partner with ArtsSmarts to do research?
- What are the ethical considerations, if any, for partners who are Ministries or school boards and want to do research?
- Once a research policy has been developed, how often will it be reviewed?

The Research Advisory Committee will receive this interim report to evaluate and examine the status of developing ArtsSmarts as a research organization. Members of the committee will then be individually interviewed to gather data about the research capacity of each of the Network Partners.

⁸ <http://www.capeweb.org/>

⁹ Canadian Institute of Health Research, Natural Sciences and Engineering Council of Canada, & Social Science and Humanities Research Council of Canada. (2005). *Tri-council policy statement: Ethical conduct for research involving humans*. Ottawa, ON: Public Works and Government Services Canada: http://pre.ethics.gc.ca/english/pdf/TCPS%20October%202005_E.pdf

Chapter 4 National Quantitative Research: Pre/Post Student Engagement Questionnaires

ArtsSmarts operates on the hypothesis that integrating arts into the curriculum and into the classroom will improve the school experience for students, resulting in greater engagement of students in school. Further, increased engagement produces a potential energy to stimulate learning. During the 2006-2007 school year, in an attempt to test or study this hypothesis, ArtsSmarts representatives collaborated with Karen Hume¹⁰ and a large school board in Ontario to design a questionnaire to measure students' engagement before and after participating in ArtsSmarts programs.

The questionnaire was developed based on other student engagement questionnaires, going through various iterations before being developed as two sets of questionnaires (pre- and post-ArtsSmarts). This process resulted in a set of logical scales, but does not provide information about the adequacy of the instrument in yielding reliable or valid estimates of the engagement of the students. Reliability refers to the constancy or stability of the results based on responses, and validity refers to the extent to which our interpretations are accurate.¹¹

As a result, the researcher-in-residence applied several statistical techniques to understand the extent to which results would be reliable and provide for valid interpretations. The analyses were inconclusive, partly because these types of analysis require larger sample sizes than the ones available. After meeting with the Research Advisory Committee, it was that a second round of the questionnaire would be implemented. The questionnaire has since been sent "as is" to all ArtsSmarts Partners, to collect a larger sample which will help in understanding the adequacy and accuracy of the instrument.

Current Status

The researcher-in-residence produced a report, "Deconstructing Engagement: A First Generation Report on the ArtsSmarts Student Engagement Questionnaire"¹² that summarizes the results and the psychometric properties of the instruments from this first administration of the questionnaire.

This report has three foci:

1. A summary of the responses of students who completed the questionnaire.
2. A comparison of student engagement before and after the ArtsSmarts intervention.
3. Identification of strengths and weaknesses in the questionnaire for further revisions.

The report was also submitted to the School Evaluation and Program Development, Division of the American Educational Research Association report competition. The results of the competition will be made public at the end of March 2007.

Next Steps

Once all the data have been collected, the researcher-in-residence will re-examine the psychometric properties of the questionnaire and write a report outlining the results and the quality of the instrument.

¹⁰ Hume, K., (2006). *Engaged in Learning: The ArtsSmarts Model*. ArtsSmarts, Ottawa, Canada: <http://www.artssmarts.ca/media/en/EngagedInLearningWEB.pdf>

¹¹ American Educational Research Association, American Psychological Association, & National Council on Measurement in Education. (1999) *Standards for educational and psychological testing*. American Educational Research Association: Washington, DC.
Crocker, L. & Algina, J. (1986). *Introduction to classical and modern test theory*. Wadsworth Group: Belmont, CA.

Kline, T.J.B. (2005). *Psychological testing: A practical approach to design and evaluation*. Sage: Thousand Oaks, CA.

¹² See <http://www.geniearts.ca/media/en/DeconstructingEngagement.pdf>

Revisions may be necessary, as the goal is to produce a high quality student engagement questionnaire that can be shared within the ArtsSmarts network and beyond to the broader education community. Detailed outlines for administering the instrument and analyzing the results with accompanying syntax will be made available. In addition, the questionnaire and its psychometric properties will be submitted to the Canadian Journal of School Psychology¹³ for wider distribution.

¹³ <http://cjs.sagepub.com/>

Chapter 5 National Qualitative Research: Collaborative Inquiry Research Framework

ArtsSmarts is a unique organization, most closely resembling Chicago Arts Partnerships in Education (CAPE)¹⁴ in the United States and Creative Partnerships¹⁵ in the United Kingdom. Both use teachers as a primary source for studying the impact of arts-integration or arts-infusion in the classroom. Although the programs are similar, the organizations follow different paradigms when doing research. CAPE follows an action research model, in which the teacher is the proponent of the research who controls and documents classroom practice. Creative Partnerships works on a collaborative model, in which teachers work with researchers to help them do research.

ArtsSmarts does not fit either of the above models. The critical difference is the ecology of the organization. Both CAPE and Creative Partnerships are traditional organizations, with a large staff, a hierarchy and internal capacity for research. ArtsSmarts draws life from the strength of the relationships among its partners.

This chapter outlines the Collaborative Inquiry Research Framework (CIRF), within which ArtsSmarts plans to carry out research. The theory underlying the CIRF, its development, and the current status of implementing the research framework are explained below.

Levels, Layers or Groups?

ArtsSmarts helps to foster the growth and strength of its relationships with partners. These relationships are the “threads and knots” in network-based learning communities¹⁶. Earl and Katz (2006)¹⁷, further explain:

...[T]hreads represent the relationships; the knots represent the activities, structures and content of collaboration. The knots of collaboration are the vehicles through which schools and networks conduct the work of improvement (p. 6).

The traditional organizational hierarchy does not exist within ArtsSmarts, and methodologies based on research of organizational hierarchies, such as the layered research approach¹⁸, do not fit the ecological form of ArtsSmarts.

Capra¹⁹ described how research based on partnership organizations ought to be based on groups rather than levels or layers. The idea is that different groups of partners work together more closely in the network when they have a certain focus in mind. The most easily identified are those grouped by roles, e.g. teacher – artist – student; Partners; or ArtsSmarts. There may be other non-role based groups within the network that can be examined as well. This is a unique feature in ArtsSmarts, in which groups emerge that are not connected by “layers” or “levels”, but who collaborate for specific purposes. This flexibility allows for ArtsSmarts to act more like a network than an organization. At the same time, this flexibility calls for a more sophisticated and dynamic research framework than those employed by other organizations.

¹⁴ <http://www.capeweb.org>

¹⁵ <http://www.creative-partnerships.com/>

¹⁶ Church, M, Bitel, M, Armstrong, K, Fernando, P, Gould, H, Joss, S, Marwaha-Diedrich, M, de la Torre, A and Vouhé, C (2002) *Participation, Relationships and Dynamic Change: New Thinking on Evaluating the Work of International Networks*, University College, London.

¹⁷ Earl, L. & Katz, S. (2006), *How Network Learning Communities Work* (Seminar Series Paper. No. 155). Victoria, Australia : Center for Strategic Education.

¹⁸ Burnaford, G. (2006). *Moving toward a culture of evidence: Documentation and action research inside CAPE veteran partnerships*. Chicago Arts Partnership in Education: http://www.capeweb.org/cape_research/gb_vet.pdf

¹⁹ Capra, F. (1983). *The turning point: Science society and the rising culture*. Bantam: New York.

Collaboration – ‘C’

The first step in developing the ArtsSmarts research model is to establish the mode of research. We now know that ArtsSmarts is not a traditional organization, but rather one based on relationships. Action Research (AR) was a mode of research we began exploring in the hopes that it would meet the mission of ArtsSmarts. Politically, AR is attractive because many school boards have this as a focus in their research, and initiatives with AR are more likely to be preferred by school boards. Theoretically, AR is focused on teachers conducting research to improve their own pedagogy.²⁰ While teachers improving their practice is important, it is only part of what ArtsSmarts is striving to investigate and improve. Applying a traditional form of AR would therefore limit the scope of research.

Collaborative Inquiry provides an alternative model for ArtsSmarts. Collaborative Inquiry is “a process of repeated episodes of reflection and action through which a group of peers strive to answer a question of importance to them (p. 6)”²¹. This approach is preferred by Creative Partnerships²² and is much more in line with the ethos in which ArtsSmarts operates. Collaborative Inquiry, or Collaborative Action Research, as it is sometimes referred to, appears to be the most appropriate mode of research for ArtsSmarts, in that it provides the most flexibility. Collaborations within ArtsSmarts have a shared focus: teachers and artists have complementary interests that drive the way they conduct the class, and what they learn from the experience of working together and with students.

Inquiry Research – ‘IR’

The shared focus of a group is often rephrased in research questions or hypotheses to be tested.²³ In applied settings, these research questions remain open for refinement. An iterative approach is more rigorous and provides more valid interpretations,²⁴ by allowing the investigators to engage in routine reflection in order to promote consistency in the research and streamline their methods of informing practice.²⁵ Teachers talking about ArtsSmarts projects often say they get caught up with the actions they are taking and lose sight of the project and the initial focus. Thus a vital component of the ArtsSmarts research framework is ensuring that research is being conducted in the way it was intended. This is also crucially important in “scale-up” of research: if ArtsSmarts intends to use research executed by teachers-artists-students, then it has to make sure that what is produced is as rigorous as possible.

Framework – ‘F’

Research for Action

ArtsSmarts is an action-focused organization mandated to make positive changes within the school system by promoting art, partnerships, student learning and student awareness of cultures and values

²⁰ Carr, W. & Kemmis, S. (1983) *Becoming Critical: knowing through action research*. Deakin University: Victoria.

Mills, G.E. (2007). *Action research: A guide for the teacher researcher*. Pearson Education: Upper Saddle River, NJ.

Mason, J. (2002). *Researching your own practice: The discipline of noticing*. Routledge: New York.

²¹ Braye, Lee, Smith, and Yorks, (2000), cited in Kakabadse N. K., Kakabadse, A. P., & Kalu, K. N. (2007). Communicative action through collaborative inquiry: Journey of a facilitating co-inquirer. *Systemic Practice and Action Research*, 20, 245–272.

²² Downing, D., Lord, P., Jones, M., Martin, K., & Springate, I. (2007). *Study of Creative Partnerships Local Sharing of Practice and Learning*. Slough: NFER:

<http://www.creative-partnerships.com/content/researchAndEvaluationProjects/207370/207375>

²³ Fraenkel, J.R., & Wallen, N.E. (2006). *How to Design and Evaluate Research in Education*, 6th edition. McGraw-Hill: Boston.

²⁴ Altrichter, H. (2005). The role of the ‘professional community’ in action research. *Educational Action Research*, 13, 11-24.

Champion, D. (2007). Managing action research: The PEARL framework. *Systemic Practice and Action Research*, 20, 455-465.

²⁵ Cousins, J. B. and Earl, L. (Eds.) (1995). *Participatory Evaluation in Education: Studies of Evaluation Use and Organizational Learning*. Falmer: London, UK.

Mills, G.E. (2007). *Action research: A guide for the teacher researcher*. Pearson Education: Upper Saddle River, NJ.

Mason, J. (2002). *Researching your own practice: The discipline of noticing*. Routledge: New York.

within society. Although change takes time and evolves in many ways,²⁶ the research from ArtsSmarts will help build the argument to make the claims²⁷ for system wide change and engage participants as “agents of change” who are involved within the research.²⁸

ArtsSmarts can conduct research either by asking for research to be conducted, or having an external agency perform research and provide a report, or by being involved in research, or having partners involved with research. The approach to be used in any circumstance will be conditioned by the effect that ArtsSmarts wants to achieve. For example:

If ArtsSmarts wants to change teacher and school practices through arts-integration or infusion then teachers and schools ought to be involved in the research.

If ArtsSmarts wants to contribute to an understanding of the effect of arts-integration or infusion on children’s cognitive processing, then there will be a greater reliance on external research capacity.

These two examples illustrate the complexity in determining where ArtsSmarts should focus its research efforts. However, in order to evoke this change there has to be a well-established process of documentation as the research will be asked to provide an account of process.

Research Accountability

Researchers make it a habit to document the methodology and analysis of procedures, as well as the findings from their work. This routine behaviour in the research world can be made explicit as a process of documentation for those involved in Collaborative Inquiry Research as part of ArtsSmarts projects.

Documentation helps others see what the work looks like; it validates the learning that is occurring and provides visual and aural images for thinking processes. It is an extended process, building on artists’ natural impulses to perform and present, that can expand classroom teachers’ vision of their roles in schools, communities and the arts education field (Burnaford, 2006 p.3).²⁹

Documenting processes also helps build the rigour needed in research³⁰, and may also provide ArtsSmarts with evidence to monitor the progress of research projects for improvement purposes.

Implementing CIRF: Working with Teachers-Artists-Students

We took the theoretical elements of CIRF and began to operationalize them within the context of ArtsSmarts in relation to the simplest and most prevalent group: teachers-artists-students. Working with a larger school board within Ontario, the researcher-in residence developed a 10-step process that encapsulates the ideas of CIRF, refined the steps, and created a template that can be completed by teacher-artist-student teams. The template is currently being piloted to make further refinements so that it can become the reporting process for ArtsSmarts and be used nation-wide with the ArtsSmarts teacher-artist-student teams. The following diagram outlines the 10-step CIRF process:

²⁶ Fullen, M. (2000). Three stories of educational reform. *Phi Delta Kappan*, 81, 581-4.

²⁷ Toulmin, S., Rieke, R., and Allan J., (1984) *An Introduction to Reasoning 2nd ed.* Macmillan: New York.

²⁸ Altrichter, H. (2005). The role of the ‘professional community’ in action research. *Educational Action Research*, 13, 11-24.

Collins S. (2004). Ecology and ethics in participatory collaborative action research: An argument for the authentic participation of students in educational research. *Educational Action Research*, 12, 347-362.

²⁹ Burnaford, G. (2006). Moving toward a culture of evidence: Documentation and action research inside CAPE veteran partnerships. Chicago Arts Partnership in Education: http://www.capeweb.org/cape_research/gb_vet.pdf

³⁰ Toulmin, S., Rieke, R., and Allan J., (1984) *An Introduction to Reasoning 2nd ed.* Macmillan: New York.

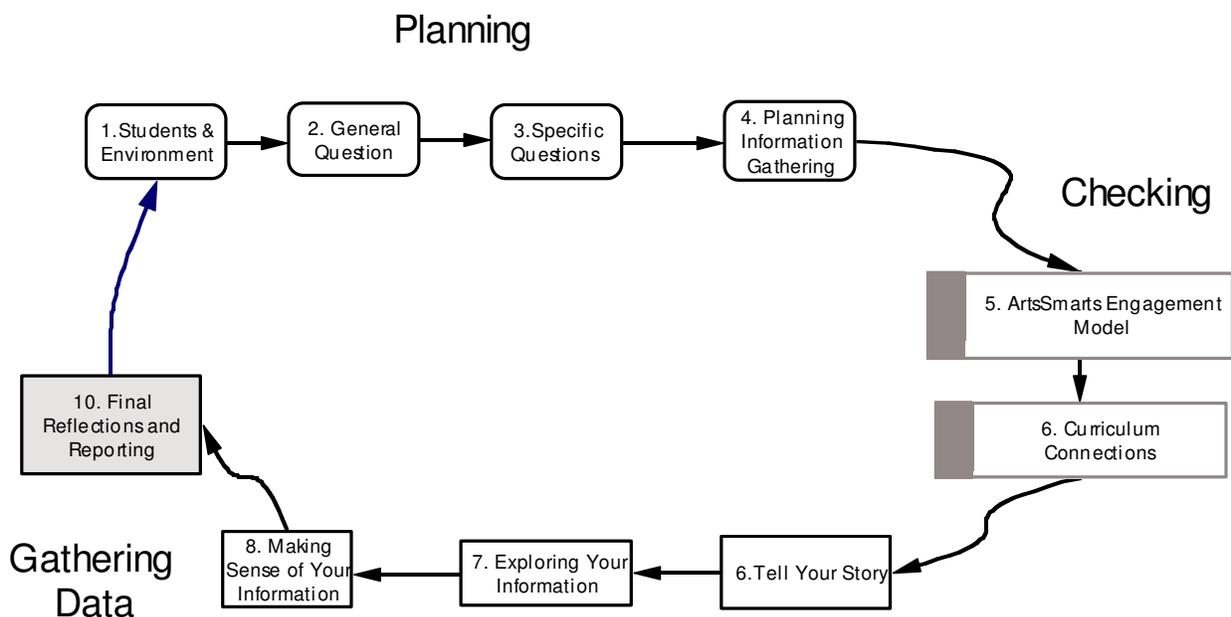


Figure 6.1: Ten-Step CIRF Template.

There are three “big” phases in this process: 1 Planning, 2. Checking, 3. Gathering and Interpreting Data. The interpretation or “final reflections and reporting,” is shaded as it asks those in the research project “What have you learned?” This is a unique element in the template that many other initiatives do not address. The specifics of the template that is being piloted are explained in the Appendix C.

Next Steps

The template allows ArtsSmarts to collect data about what is happening within the classroom with the teacher-artist-student teams. The next step is to develop a way of being able to analyze the completed project templates so that Partners and ArtsSmarts can determine the benefits of arts integration or arts infusion. The planned steps for “scale-up” of this research framework follow:

1. Develop, either through working with ArtsSmarts’ web designer or through an Access database, a way of collecting and organizing the templates from various research projects.
2. Interview partners to further refine the research framework based on the partners’ capacity for research.
3. Connect with universities and research centres that have an interest in arts integration and learning.
4. Through ongoing discussion with Partners and ArtsSmarts’ Research Advisory Committee, develop big research questions to provide direction to ArtsSmarts for focusing its research efforts. This stage would also include determining who would aid in conducting the research.
5. Disseminate the research framework to both academic and professional communities. This framework has been submitted for presentation at the *International Forum on the Creative Economy*, sponsored by the Conference Board of Canada.³¹ the framework will also be written as a formal academic paper to be submitted to the *Journal of Systematic Practice and Action Research*.

The CIRF has been designed with as much flexibility and applicability as possible, while retaining the rigour of high-quality research. ArtsSmarts will periodically evaluate the utility of this framework, keeping within its reflective spirit.

³¹ <http://www.conferenceboard.ca/Default.htm>

Chapter 6 Summary and Plans

When the original research work plan was developed, there was not a great understanding of the specific needs to determine how ArtsSmarts can become a more research-focused organization. Through intensive dialogue with ArtsSmarts and its Partners, a better understanding of the path needed to bring ArtsSmarts to the fore front as a research organization has been achieved. The new work plan is focused on the continuation and expansion of the five major areas discussed in this report.

1. Situating ArtsSmarts as Research Organization (*Chapter 2*)
2. Building an Infrastructure for Research (*Chapter 3*)
3. National Quantitative Research: Pre/Post Student Engagement Questionnaires (*Chapter 4*)
4. National Qualitative Research: Collaborative Inquiry Research Framework (*Chapter 5*)
5. Future Questions (*this chapter*)

Within each chapter of this report, a purpose was provided for each focus, how it is currently being addressed, and what the next steps are. The intention is that these five major areas will help move ArtsSmarts towards becoming a research organization.

Future Questions

The aim of the research-in-residency is to set up the majority of the research infrastructure and methodologies, as well as to develop a set of future research questions for ArtsSmarts to focus on over the next 3-5 years. Some of these questions will be based on the results of each of the major areas; others will need to be developed through interviews with ArtsSmarts Partners, and connections with the larger educational research community.

It is essential that ArtsSmarts, as an innovation, re-evaluates these future questions in about a 3-5 year time span. Since an innovation is only an innovation when it's new, a big research question already emerging for ArtsSmarts is: *How long does it take for an innovation to become a habit?* In order for ArtsSmarts to stay on the cutting edge of innovation in arts-based learning and arts integration, constant evaluation and re-evaluation of the research agenda is critical. At the end of the research-in-residency, ArtsSmarts will be left with a plan for when, and potentially with whom, to collaborate on evaluating and changing its research agenda to meet future innovations.

Resources

- Altrichter, H. (2005). The role of the 'professional community' in action research. *Educational Action Research*, 13, 11-24.
- American Educational Research Association, American Psychological Association, & National Council on Measurement in Education. (1999) *Standards for educational and psychological testing*. American Educational Research Association: Washington, DC.
- Andrews, B.W. (2006). Re-play: Re-assessing the effectiveness of an arts partnership in teacher education, 52 (443-459). *Review of Education*.
- Bray, J.N., Lee, J., Smith, L.L., Yorks, L. (2000). *Collaborative inquiry in practice*. Sage, London, UK.
- Burnafor, G. (2006). Moving toward a culture of evidence: Documentation and action research inside CAPE veteran partnerships. Chicago Arts Partnership in Education: http://www.capeweb.org/cape_research/gb_vet.pdf
- Capra, F. (1983). *The turning point: Science society and the rising culture*. New York: Bantam.
- Carr, W. & Kemmis, S. (1983) *Becoming Critical: knowing through action research*. Victoria: Deakin University.
- Champion, D. (2007). Managing action research: The PEARL framework. *Systemic Practice and Action Research*, 20, 455-465.
- Church, M, Bitel, M, Armstrong, K, Fernando, P, Gould, H, Joss, S, Marwaha-Diedrich, M, de la Torre, A and Vouhé, C (2002) *Participation, Relationships and Dynamic Change: New Thinking on Evaluating the Work of International Networks*. University College: London.
- Collins S. (2004). Ecology and ethics in participatory collaborative action research: An argument for the authentic participation of students in educational research. *Educational Action Research*, 12, 347-362.
- Cousins, J. B. and Earl, L. (Eds.) (1995). *Participatory Evaluation in Education: Studies of Evaluation Use and Organizational Learning*. Falmer: London, UK.
- Crocker, L. & Algina, J. (1986). *Introduction to classical and modern test theory*. Wadsworth Group: Belmont, CA.
- Downing, D., Lord, P., Jones, M., Martin, K. and Springate, I. (2007). *Study of Creative Partnerships Local Sharing of Practice and Learning*. Slough: NFER.
- Earl, L. & Katz, S. (2006), *How Network Learning Communities Work* (Seminar Series Paper. No. 155). Victoria, Australia: Center for Strategic Education.
- Fraenkel, J.R., & Wallen, N.E. (2006). *How to Design and Evaluate Research in Education*, 6th edition. McGraw-Hill: Boston.
- Fullen, M. (2000). Three stories of educational reform. *Phi Delta Kappan*, 81, 581-4.
- Kakabadse N. K., Kakabadse, A. P., & Kalu, K. N. (2007). Communicative action through collaborative inquiry: Journey of a facilitating co-inquirer. *Systemic Practice and Action Research*, 20, 245–272.

- Kline, T.J.B. (2005). *Psychological testing: A practical approach to design and evaluation*. Sage: Thousand Oaks, CA.
- Mansilla, V.B. (2005). Assessing student work at disciplinary crossroads., February, (pp-pp) *Change*.
- Mason, C.Y., & Steedly, K.M. (2006). Rubrics and an arts integration community of practice. (pp-pp) *Teaching exceptional children*.
- Mason, J. (2002). *Researching your own practice: The discipline of noticing*. Routledge: New York.
- Mills, G.E. (2007). *Action research: A guide for the teacher researcher*. Pearson Education: Upper Saddle River, NJ.
- Mishook, J., & Kornhaber, M.L. (2006). Arts Integration in an era of accountability. Arts Education Policy Review
- Toulmin, S., & Gustavsen, B., (1996). *Beyond Theory: Changing organizations through participation*.
- Toulmin, S., Rieke, R., and Allan J., (1984) *An Introduction to Reasoning 2nd ed.* Macmillan: New York.
- Hume, K (2006). *Engaged in learning: The ArtsSmarts model*, Ottawa, ON: ArtsSmarts: <http://www.artssmarts.ca/media/en/EngagedInLearningWEB.pdf>
- Canadian Institute of Health Research, Natural Sciences and Engineering Council of Canada, & Social Science and Humanities Research Council of Canada. (2005). *Tri-council policy statement: Ethical conduct for research involving humans*. Ottawa, ON: Public Works and Government Services Canada: http://pre.ethics.gc.ca/english/pdf/TCPS%20October%202005_E.pdf
- Verma, R., McLaughlin, C., Johnston, R., & Youngdahl, W. (2005). Operations management in not-for-profit, public and government services: Charting a new research frontier. *Journal of Operations Management*, 23, 117-123.
- Olson, J.A., Belohlav, J.R., and Boyer, K.K. (2005). *Operational, economic and mission elements in not-for-profit organizations: the case of the Chicago Symphony Orchestra*. *Journal of Operations Management*, 23, 125-142.