



**Financial Consumer
Agency of Canada**

**Agence de la consommation
en matière financière du Canada**

Is Financial Education in Canada Working?

Research and recommended best practices for evaluating financial education programs

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The Financial Consumer Agency of Canada (FCAC)**

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About FCAC

FCAC fosters greater understanding of financial services in Canada through its consumer education materials and interactive tools. It provides accurate, objective information about financial products and services, and informs Canadians of their rights and responsibilities when dealing with federally regulated financial institutions. In addition, through its financial literacy programs, FCAC helps Canadians increase their financial knowledge and confidence in managing their personal finances. FCAC also ensures compliance with the consumer protection laws, and monitors codes of conduct and public commitments that apply to banks and federally incorporated trust, loan and insurance companies.

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Executive Summary

As financial education programs proliferate in response to increased funding and government attention, evaluating their effectiveness has not been a priority. Many providers of financial education programs view evaluation as an afterthought and, hence, tend to take an ad hoc and imprecise approach to it. As program providers begin to recognize the growing importance of evaluation and seek to measure the impact of the programs they are creating, the need for best practices and sound metrics is becoming clear.

However, there are inherent challenges in the types of evaluation many providers of financial education want to do, particularly in measuring attitudinal and behavioural change. Academics agree that measuring these types of changes takes a sophisticated, long-term and standardized approach based on research and a commitment to longitudinal evaluation. While academic expertise in this area is growing and best practices in program evaluation are being developed, there is still not a large enough body of work around evaluation as it relates to financial education. Moreover, most program providers do not have access to what is available or are altogether unaware of any developments in the area.

This report seeks to respond to and interpret the framework proposed by the Organisation for Economic Development and Cooperation (OECD) within a Canadian context. It reviews and comments on it and includes additional research conducted through interviews with key experts in the area of financial education in Canada and around the world. This report also looks at some additional academic work done since this paper was produced, specifically Adele Atkinson's *Evidence of impact: An overview of financial education evaluations* (2008), and recent unpublished work shared with me by Professor Angela Lyons at the Center for Financial Education at the University of Illinois. At its conclusion, this paper proposes a reframed and modified version of the OECD

framework. It also makes a series of recommendations for steps FCAC can take to support the pursuit of sound evaluation best practices in Canada and to improve the way it evaluates its own financial education programs as an organization.

Section I

The Evaluation Challenge

Financial literacy and evaluation

Policymakers around the world have been wrestling with the idea of how to foster a population that is knowledgeable about and comfortable with basic financial planning. Debt levels are on the rise worldwide while savings rates have dipped in many countries. As individuals face dwindling access to public pension funds and employer-sponsored retirement benefits, the responsibility for retirement savings — and all the adjunct risks associated with basic money management (e.g., investment risk) — are being increasingly thrust upon individuals who are not equipped to deal with these issues. Most schools do not teach basic financial planning concepts.

Boosting levels of financial literacy has become a key policy issue around the world. In 2003, The Financial Services Authority (FSA) in the U.K. took a leading role when it launched a National Strategy for Financial Capability. Such national strategies addressing financial literacy have either been established or are in the works in other countries around the world (e.g., Canada, the United States and New Zealand). The Organisation for Economic Co-operation and Development (OECD) recently established a Financial Education Project to study financial education programs in different countries and provide data on what types of initiatives are underway to improve financial literacy levels in those countries. The OECD's goal is to develop a methodology that policymakers can use to compare strategies for improving financial literacy.

The challenge

As financial education programs proliferate in response to increased funding and government attention, evaluating their effectiveness has not been a priority. Most providers of financial education programs tend to view evaluation as an

afterthought and, hence, tend to take an ad hoc and imprecise approach to it. As program providers begin to recognize the growing importance of evaluation and seek to measure the impact of the programs they are creating, the need for best practices and sound metrics is becoming clear.

But there are inherent challenges in the types of evaluation many providers of financial education want to do, particularly in measuring attitudinal and behavioural change. Academics agree that measuring these types of changes takes a sophisticated, long-term and standardized approach based on research and a commitment to longitudinal evaluation. While academic expertise in this area is growing and best practices in program evaluation are being developed, there is still not a large enough body of work around evaluation as it relates to financial education. Moreover, most program providers do not have access to what is available or are altogether unaware of any developments in the area.

The opportunity

The Financial Consumer Agency of Canada (FCAC) can develop an approach to evaluating its own financial education programs that draws on current best practices and new academic research. It can also share this approach with other financial education providers in Canada and help encourage dialogue and discussion about evaluation practices among these organizations. This would create a good starting point for improving evaluation practices in Canada.

Purpose of this report and methodology

The Financial Consumer Agency of Canada commissioned this report. Its purpose is to propose a framework of best practices for evaluating financial education programs, both at FCAC as an organization and within the context of Canada as a whole.

At the request of the Agency, the basis of this framework — and therefore of this report — is a recent paper commissioned by the OECD: “Evaluating the Effectiveness of Financial Education Programs” by New Zealand-based writer and researcher Alison O’Connell. It proposes a high level framework of best practices to guide financial education providers in the evaluation their programs. The paper draws extensively upon relevant academic literature and uses this as its foundation.

This report seeks to respond to and interpret O’Connell’s framework within a Canadian context. It reviews and comments on it and includes additional research conducted through interviews with key experts in the area of financial education in Canada and around the world. This report also looks at some additional academic work done since O’Connell’s paper was produced, specifically Adele Atkinson’s *Evidence of impact: An overview of financial education evaluations* (2008), and recent unpublished work shared with me by Professor Angela Lyons at the Center for Financial Education at the University of Illinois. At its conclusion, this paper proposes a reframed and modified version of O’Connell’s framework. It also makes a series of recommendations for steps FCAC can take to support the pursuit of sound evaluation best practices in Canada and to improve the way it evaluates its own financial education programs as an organization.

This report is not to be taken as a comprehensive survey of all financial education program evaluation efforts in Canada and around the world. Much work has already been done academically and among practitioners, and this paper does not seek to reinvent the proverbial wheel. Rather, it outlines at a high level the challenges facing providers of financial education in Canada (through interviews and additional research) and what their needs are and, from there, it builds upon work done in the area to date. An additional limitation faced in this paper is the lack of data and clear guidelines around evaluation practices

in Canada among financial education program providers. While they shared their approaches to evaluation for this paper, the results of those conversations were more focused on gaps, challenges and needs rather than solutions.

What is evaluation?

We generally know what is meant by the term financial education. The OECD defines this as

...the process by which financial consumers/investors improve their understanding of financial products and concepts and, through information, instruction and/or objective advice, develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being. (source: oecd.org)

But what do we mean when we use the term evaluation within the context of financial education programs? Evaluation is an attempt to measure the success of a given program through a variety of metrics. Sounds simple, but establishing and applying such metrics is very difficult. Academic research into evaluation practices in financial education programs identifies a number of challenges, such as a lack of best practices, absence of clarity around indicators and metrics, and a lack of expertise and tools to appropriately analyze the data collected (Lyons 2005, Fox et al. 2003, Atkinson 2008). Moreover, the challenge of evaluation raises many questions. For example, the definition of success is not the same for all financial education programs. Various audiences and population groups have differing needs and respond differently to financial education. This begs several important questions — which audiences are we trying to reach? What impact are we looking for? How do we need them to change? What are the best ways to reach and engage them? Answering these questions points to the inherent challenges in setting up an evaluation approach for financial education programs. Indeed, evaluation is possibly one of the most daunting challenges facing

providers of financial education programs today. Yet the solution in some ways may be easier to overcome than the picture suggests if a concerted effort is given to providing leadership and resources.

This report and the OECD framework

This report is the first step in meeting a key part of FCAC's financial literacy strategy — to establish and disseminate a framework for evaluating financial education programs in Canada. As stated in its strategy:

FCAC is committed to designing and implementing a framework for evaluating the success of its financial literacy/financial capability initiatives that can be widely used by other providers of financial information and educational products or initiatives in Canada. FCAC will develop this framework by March 2009 and make it available to other providers of financial information/financial education initiatives, partners, etc.

The report builds on work that has already been done in the area of program evaluation, as mentioned earlier by the OECD, which established its Financial Education Project in 2003 to address concerns about the negative impact of low levels of financial literacy in member countries. As part of this project, a Committee on Evaluation was struck and a report was commissioned to explore the effectiveness of current approaches to the evaluation of financial literacy initiatives. As an OECD member country, Canada is part of the working group on evaluation of financial education programs. In using the OECD-endorsed framework by O'Connell, FCAC has an opportunity to support the OECD's goal of an international, standardized approach to evaluation. The Agency can also leverage the work that has already been done by the OECD to meet its own strategic goal of promoting best practices around financial education evaluation in Canada.

O'Connell in the OECD paper develops a high level "Financial Education Evaluation Framework" of best practices that can be used to evaluate the effectiveness of financial education programs in any country. Part of her strength comes from reviewing the academic work done to date in the area of financial education program evaluation. Using this as a foundation, O'Connell proposes a framework that can be applied to the evaluation of a specific program or series of initiatives. She also proposes it be used as a checklist to assess or help develop an approach to analysis for data. The framework proposes five evaluation areas for program providers to consider when setting up an evaluation approach and in analyzing the data that results. These can be summarized as:

1. Need ("What objectives does the program try to meet?")
2. Accountability ("How much is the program used and how much does it cost?")
3. Fine-tuning ("How could the program be improved?")
4. Micro impact ("How effective is the program against its objectives?")
5. Macro impact ("What impact is the program having relative to the big policy picture?")

(See Appendix A for the full framework.)

The push for a standardized and shared approach to evaluation is generally agreed upon by academics working in the field (Fox et al 2005).¹ Just as countries seek a national policy-based approach to the financial literacy question, so too should their evaluation practices follow a similarly standardized and widely adopted approach. O'Connell draws on academic research outlining the barriers

¹ Fox et al argue, "With a more systematic, consistent and collaborative approach to program evaluation, stronger evidence of any link between financial education and targeted outcomes may emerge. An overarching framework for the evaluation of financial education programs would provide a guide or road map for collecting information about program development, delivery, effectiveness, and accountability. Widespread adoption of key elements in a common framework will not only make program evaluation less daunting for financial educators, by providing a guide and frame of reference, but also contribute to consistency in data collection and clarity in program comparison." (203)

to meaningful evaluation, such as data integrity, difficulties in collecting data, a lack of benchmarks, and the challenge of isolating specific impacts such as behaviour change and attitudinal change.

Program providers in Canada share these challenges. Without clear metrics and shared best practices around data collection, setting benchmarks — whether micro or macro — is difficult if not impossible. For countries seeking to measure the effectiveness of nationally focused financial education strategies, this poses a problem as illustrated by researcher Adele Atkinson, who was commissioned to evaluate the effectiveness of the FSA's financial education programs in 2008. She found so many gaps and inconsistencies in evaluation practices that she was unable to complete one of her main objectives due to lack robust evidence. This goal was "To create a set of plausible estimates of the proportion of people likely to respond to types of financial capability initiatives by making changes in their behaviour, and the extent of any changes they make to their personal finances. (Atkinson 2008, p. 7)

If we look at O'Connell's OECD-endorsed framework, it provides a research-based starting point for tackling the challenge of evaluation and addressing some of the major barriers organizations that provide financial education face. The paper:

- proposes a standardized approach to evaluation that can be widely disseminated among financial education program providers around the world;
- outlines some key questions and challenges around evaluation that program providers need to address (i.e., discussion of metrics and objectives);

- draws on academic research done in the area and translates it into a usable framework for practitioners (therein applying academic rigour to evaluation practices);
- aims to provide a flexible format for addressing and answering the questions it raises.

Ultimately, O'Connell's framework can provide a basis for building best practices in financial education program evaluation in Canada. But it has some drawbacks as it stands. It needs retooling if it is going to act as a clear road map for practitioners and it must reflect the needs and concerns of Canadian program providers such as lack of expertise in data collection, lack of metrics, and an overall lack of basic information to help them set clear objectives up front. In the next section, I outline the state of financial literacy in Canada and challenges articulated by a specific set of practitioners and experts through interviews. These interviews also point to areas of need among financial education program providers in Canada.

Section II

Financial Education and Evaluation in Canada: Where are we? Where do we want to be?

Building on the framework for Canada

A revised framework will need to address the state of financial education in Canada. This section outlines where we are in Canada today — what are the origins of financial education in this country, where do we stand today and what challenges do we face when it comes to program evaluation? Moreover, what needs to change for the better? This section is built on interviews with key players in financial education in Canada and internationally, specifically in the U.S., the U.K. and New Zealand, which are viewed as leaders in the area of financial literacy and financial capability. Those interviewed come from government and not-for-profit organizations offering financial literacy programs and education. Others have knowledge and expertise of the field, including academics and industry veterans with a long track record of working in the area of financial literacy.

Individuals were asked questions pertaining to their organizational objectives for doing financial education, the types of financial education programs they offer, whether or not they have an evaluation framework in place, if so, what it involves, and what impacts they seek to measure through evaluation. They were also asked whether they feel their approach is effective and what they would like to measure that they are presently unable to. Questions for academics and experts in the evaluation field who do not offer specific financial education programs focused on the challenges facing financial education program providers in the area of evaluation and what they feel needs to change for the better.

Financial education in Canada

Cakebread 2006 provides a scan of 32 not-for-profit organizations in Canada that provide free, publicly available financial information and/or education material. Of this, 80 percent of the financial information and education in Canada is geared toward investors. This emphasis on investor education developed in the late 1990s, when retail investors became much more prominent in the Canadian landscape.² Investor protection began to rise in importance particularly among regulators of financial markets. During this time, the Toronto Stock Exchange, the Ontario Securities Commission (OSC), the Alberta Securities Commission, L'Autorité des marchés financiers (AMF) and the B.C. Securities Commission (BCSC) all took steps to earmark funds collected from fines paid for securities law violations for investor education initiatives. With those funds, organizations were able to create and/or fund a series of investor education programs. Of these organizations, the OSC (through its Investor Education Fund), the AMF and the BCSC were able to develop an array of targeted programs serving investors in their respective provincial jurisdictions that still exist today. Some of these organizations also work together with the umbrella regulator, the Canadian Securities Administrators (CSA), to produce nationally focused initiatives in the area of investor education.

With more and more resources being put into investor education programs, and organizations starting to target other areas of financial education in Canada, duplication and overlap have become an issue. In addition, financial education as it stands today only targets some segments of the population (e.g., investors, individuals in certain provinces, etc). Moreover, the focus and resources devoted

² In particular, Glorianne Stromberg put much emphasis on investment education and securities regulation in her groundbreaking 1998 report, *Investment Funds in Canada and Consumer Protection: Strategies for the Millennium*. Since that time, securities commissions across Canada have worked to develop and grow the information and educational resources they provide to investors. Information and education are typically considered central to investor protection by all regulators.

to investor education specifically has meant that not enough attention has been paid to financial literacy as a large-scale issue.

In recent years, financial literacy has become a policy issue, and the importance of a national approach to the topic is now widely recognized. Two reports were written in Canada that encouraged national leadership and sustained support for a Canada-wide financial literacy strategy. *Why Financial Capability Matters* (2005) was the result of a collaborative initiative on the part of the Government of Canada Policy Research Initiative, FCAC and Social Enterprise Development Innovations (SEDI). A key finding of the report was that Canada lags behind the rest of the world in the area of financial education because it does not have a national strategy to promote financial capability. Cakebread in her 2006 report for the Task Force to Modernize Securities Regulation in Canada called for a more cohesive approach to financial education in Canada, where investor education is part of a larger financial capability/literacy continuum, rather than the focus in and of itself. This finding provided the basis for the final recommendations made in *Cakebread 2006*, which called for the development of a national strategy and looked to FCAC to play a greater role.

In 2007, major strides were taken toward creating a national strategy for financial literacy in Canada. That year, FCAC wrote its strategic plan to promote financial literacy nationally. The Government of Canada, in its budget of March 19, 2007, proposed a \$3 million contribution to fund the first phase of the Agency's financial literacy activities in this area over a two-year period. In 2009, financial literacy was given another nod in the federal budget through a proposed task force to make further recommendations on a national financial literacy strategy.

Evaluation — Where we are and where we want to be

In Canada, as we move toward consensus on a national strategy for financial literacy, we — like many countries — face a major challenge in the area of program evaluation. While initiatives have proliferated, we do not have a clear sense of their level of effectiveness. At the moment, there are no shared goals, definitions or methodologies for measuring the impact of financial education programs — in fact, there is no set agreement on what problems need to be addressed. At a glance, organizations seem to follow differing organizational objectives in isolation (from investor education to credit counseling). But without a shared objective or goal — or even clear objectives within organizations — it is difficult to develop measures and benchmarks to show whether programs are really effective. This is further exacerbated by the competing areas of investor education and financial literacy, each with their own agendas and respective areas of responsibility.

Key findings

So what did the individuals interviewed say about the state of financial education evaluation in Canada? Overall, no one interviewed for this research (providers or experts) was satisfied with the evaluation methods currently in place. Moreover, there is no clear sense among providers of financial education in Canada that current evaluation practices currently are garnering accurate, useful or actionable information. As one financial education provider noted:

We're at the point where we don't want to rely on anecdotal evidence anymore — we want scientific assessment. Unfortunately, the field doesn't have a lot of funding for this — as well, the field is lacking longitudinal studies for many reasons — we need to see results in how effective this is.

Frustration over data collection methods, a desire for a scientific approach, and the need for longitudinal data — these issues arose again and again among

experts and program providers alike. As another provider noted when asked whether he thinks his program evaluation process is effective:

No, it's not effective. It's frustrating because this is not my background. You can have marketing campaigns around drinking and driving and smoking and you can see an impact in decreased numbers of smokers, etc. But in this case [financial literacy], true cause and effect you can't really measure — I hold out hope though, so we can say with certainty that what we are doing is effective.

This quote shows the lack of clarity around objectives and desired outcomes. For example, a campaign for quitting smoking has an agreed-upon objective — get people to stop smoking — and is therefore clear about the action(s) it wants people to take. In Canada, providers of financial education appear to be doing things for different reasons and there are no shared views on what the common problem is, let alone how it should be solved. For example, most organizations define their overall objectives for offering financial education in line with their individual organizational objectives — i.e., to educate Canadians about credit or to protect investors.

The quotes used above are representative of the types of issues and concerns the financial education providers interviewed raised. But there are others.

Overall, eight major barriers to effective evaluation came through strongly in the interviews:

- evaluation methods are not yielding the right results
- there is a lack of clear objectives at the outset
- evaluation tools do not address attitudinal and behavioural changes
- there is little formal skill/knowledge in conducting evaluation
- there is a lack of funding and resources devoted to evaluation efforts
- little evaluation of effectiveness of delivery approaches takes place
- more formal and longitudinal evaluations are needed
- there is a lack of baseline data .

In looking at where evaluation practices stand today and what providers of financial education programs would like to see in terms of change, we can get a sense of what direction needs to be taken in the future to address the challenges.

What we offer and to whom?

Most financial education programs in Canada follow the same approaches to delivery: face-to-face (through seminars), print (e.g., brochures), media (ads), Web-based materials, and school-based programs. Audiences targeted vary from broad (e.g., adult investors seeking to choose a financial advisor or mutual fund, low-income Canadians) to narrow. For example, the OSC offers brochures for parents saving for their kids' education. The BCSC offers programs targeting faith-based communities (God's Fraud Squad), and Credit Canada offers seminars to people who have been laid off (Surviving a Layoff) and couples (Couples & Money). High school students are another target audience for organizations. Some offer curriculum-based materials to support teachers in delivering financial education in the classroom — the BCSC offers *The City*, and the Investor Education Fund offers *Taking Stock in Your Future*.

Evaluation gaps and challenges

Overall, interviewees point out that evaluation is done as an afterthought and not at the planning stages of an initiative. Feedback is used to make improvements to how the program is delivered; however, providers complain they are unable to measure whether or not what they are doing is having any long-term impact on the audience. Data collection primarily consists of self-assessment through feedback forms, anecdotal evidence from program participants or instructors, and distribution of brochures and accessing of websites. There is no formal or consistent approach to how data is gathered across programs. One exception is in the area of school programs tailored to a specific curriculum for an audience (teachers) with well-defined needs and

criteria. Even then, however, only B.C. has a curriculum that includes basic financial skills. At the same time, as one individual pointed out, delivery mechanisms such as the Web and print media make it difficult to know who is being reached and how — i.e., who downloaded the information or read it only? And did it help them? Is the medium effective?

Lack of skills and resources came up repeatedly as barriers to effective evaluation. At the same time, most organizations do not have a formal approach to evaluation that encompasses all of their educational programs and initiatives. For organizations that do evaluate their programs, data is collected through feedback forms, face-to-face conversations, phone surveys, and through Web-based technology. The approach is usually self-assessment based. Such evaluation approaches generally rely on subjective opinion and qualitative data, and often lack the objective measures (i.e. specific changes in behaviour) that can really provide insight into the success of a particular program or approach. Outputs such as numbers of brochures and publications sent out, numbers of attendees at seminars and Web traffic are also popular forms of evaluation. Unfortunately, they only measure one or two inputs and do not really provide information on the efficacy and/or success of the activity or material.

When Web-based approaches are used to track uptake and user data, there is a benefit: providers are able to tell who went to the website following an ad campaign or seminar, for example (the OSC and the Investor Education Fund have done this in the past). But again results are reliant on people having access to the Internet, being aware of the website and the appropriateness of the medium for the intended target group (e.g., low-income individuals may not have Internet access). Ultimately, there is an assumption built in to the use of Web-based technology to assess whether or not a program is working — i.e., users are computer-savvy and have access to the Internet, which may or may not be correct.

Face-to-face seminars and courses allow organizations to garner direct feedback from both teachers and end users through assessment forms and anecdotal feedback. Both the OSC and the FSA have used follow-up phone calls to assess whether individuals participating in their seminars have changed their behaviour. The OSC follows up with individuals three months after a seminar and asks questions to test retention. The FSA does these six months later and also talks to learners before and during their involvement with the program. But in many ways, this points in the direction of measuring knowledge retention and to a lesser extent changes in behaviour.

Some organizations leave evaluation up to program partners who tend to have more capacity to do this kind of work. For example, George Brown College conducted student evaluations for the Financial Basics course that was sponsored and co-developed by the Investor Education Fund and FCAC. Those evaluation results were shared with the program partners. This may point to one approach to resourcing providers that currently lack capacity and expertise. Evaluation overall tends to be part of the accountability process that funders use in assessing whether the program they funded was successful.

While they are taking different approaches to evaluation, respondents said that what they are doing is not telling them what they want to know. And what most of them want to know is whether or not the program has had a meaningful impact: has an individual changed behaviour as a result? At present, outcomes related to behaviour change are not widely measured. Many take a quality control approach (e.g., is the website user-friendly, was the seminar instructor easy to understand, did you find the material helpful etc). Such feedback allows them to modify their approach and to make improvements as needed, but is missing deeper insights into the efficacy of a particular approach. For example, are there other, more effective ways to deliver the program?

Longitudinal measurement

It is far more difficult to measure the impact of a financial education program on an individual's behaviour, especially over the long term. This is not because it cannot be done; it is because resources and expertise are missing. Measuring real behaviour requires a commitment to a longitudinal approach. We need only look at social attitudes toward issues such as smoking, drinking and driving, or safe sex, which all have changed over decades. But first steps are being taken. As we have seen, the OSC (like the FSA) contacts learners who have participated in its seminars via telephone three months after seminars to test retention of key learnings, posing questions about what they would or would not do in certain situations.

The BCSC is currently doing a longitudinal study in partnership with the Okanogan School District as part of a larger program that was already in place to track the knowledge retention of high school graduates in key subject areas. In this case, the BCSC was able to tack their evaluation onto an existing program that existed at the school board level. This is the only such study I found among financial education providers in Canada or in other areas of the world. However, it was a pre-existing study and was not initiated by the BCSC. This means it will be hard to replicate in other areas.

An area where it has been extremely difficult to measure impact through evaluation has been on a national, macro level. Is it possible to measure the effectiveness of financial literacy initiatives on an entire population? The FSA completed a groundbreaking benchmark survey in the U.K. to measure the financial capability of citizens. The results were published in a report called *Financial Capability in the UK: Establishing a Baseline*. The FSA's research provided the basis for a national strategy for improving financial capability, including programming and initiatives targeting schools, families, and other areas of need identified through the research. This study is to be repeated in the future

to test for improvement. Such longitudinal research at a national level can provide a major resource for individual program providers to benchmark their programs.

In Canada, FCAC is working with Statistics Canada on a comprehensive survey of the financial skills of Canadians that is being fielded in 2009 with the results to be published in early 2010. It is hoped that these results will provide baseline information for assessing the areas where financial education is needed and that it might help in establishing key objectives for assessing the efforts of financial education providers over time (e.g., Canadians feel better about their well-being over time and make more prudent decisions). This type of benchmark information is on the wish list of many Canadian financial education providers I spoke to, and FCAC will have an opportunity to communicate and shape the results to further the state of evaluation in Canada.

Where do we want to be? Providers' wish list

In asking respondents for their evaluation "wish list," a picture emerges of where individuals working in the area of financial education would like evaluation to be in the years to come. They point to the following key areas of need: expertise, resources, tools for longitudinal evaluation, ability to know who is being reached with certain types of materials (e.g., brochures), metrics for behavioural and attitudinal shifts, national baseline data and a common framework or process that could be shared across providers. Some specific things they would like to see are:

1. Baseline data for comparison: "I would like an opportunity have some baseline information on people and then be able to get more rigorous information from them much later on."
2. Consensus: A series of agreed-upon and shared goals for providing financial education and a series of shared outcomes.

3. Longitudinal data: Said one provider of a school resource, “Four or six years after school, what is the long-term impact of learning these skills and did they use them along the way?” Another provider of school programs agreed: “We would like to see whether integrating financial education into the curriculum will have a long-term impact.”
4. Access to expertise and resources: One organization went to several universities in search of experts to build an evaluation approach for its school program, with no luck. Another organization tried to engage academic experts to help with its evaluation framework, but the costs were prohibitive.
5. Understanding who is being reached with the material: “We know who attends the seminar but who takes what out of the website or guide books, we don’t know who it gets to or what they get out of it,” one organization said. Without this knowledge, it is hard to know whether this delivery mechanism is effective.
6. Ability to measure behavioural change: Said one individual, “I would like to show a stronger link between behaviour and the program. To move beyond self-assessment interviews or forms.” Another organization expressed a wish “to know how people behave when faced with information — when we know that, we can provide the programs that help them behave in a better way.” Asked another individual — “how many people have changed their behaviour and by how much?”

What is stopping us from getting there?

In looking specifically at the Canadian situation, the main barriers cited for achieving an optimal approach to program evaluation comes from a lack of resources, a lack of access to academic expertise to develop effective evaluation approaches, a need for baseline information on the knowledge levels and needs of Canadians, and a desire for consensus around a set of shared goals and desired outcomes (including consensus around basic definitions).

As we move toward a national strategy for financial literacy, Canada has an ideal opportunity to address these issues simultaneously. With leadership and resources, providers of financial education programs can begin to assess and shape their programs around a shared set of measurable goals and outcomes as part of a national plan to improve evaluation practices. Herein lies a tremendous opportunity for FCAC. By taking a leadership role to develop standardized and consistent best practices in evaluation at a national level, the Agency can ultimately support other providers of financial education and promote a more effective approach to evaluation across the country.

Section III

How can a framework help?

Financial education program providers have raised many issues and challenges surrounding program evaluation, from a lack of baseline data to a lack of definitions around what the problems are. Many issues arise because evaluations are done ad hoc, without using any recognizable shared protocol for setting metrics or analyzing data. Most are frustrated because they are not getting the results they need to evaluate whether their programs are working, let alone to make improvements. At the same time, because evaluation approaches are often developed after programs have been created and launched, there is little alignment between overall objectives of the program and what is being measured.

This section of the paper has a threefold goal:

1. to show how a framework like the OECD-endorsed one developed by O'Connell needs to be modified for use by program providers in Canada
2. to make recommendations on how FCAC can take steps to foster best practices in financial education program evaluation in Canada
3. to recommend ways that the framework can be modified to address the evaluation needs of FCAC as an organization.

Building on O'Connell

At first blush, O'Connell's framework hits some good points. In the area of need she offers up specific questions to get organizations thinking about their objectives — "is it to improve financial knowledge, skills or attitudes (generally or in specific ways) and/or to encourage a specific behaviour such as saving more in a retirement scheme or paying down debt?" She also encourages some thought around delivery mechanisms — "More detailed analysis would link the

assessment of different ways of delivering the education to impact measures.” She also recommends that objectives directly suggest a list of measures and a timeframe for achieving targets. She also prompts some thinking around the big picture, outside of isolated organizational impacts — how does the program relate to a larger policy or other possible programs?

While it’s a starting point, O’Connell’s framework is not complete: it contains gaps, particularly in translating it into a Canadian context. It needs to be modified and expanded to make it more comprehensive. It could also be made user-friendlier, enabling providers of financial education to identify and answer some of the complex questions involved in setting up an evaluation process (many of which are outlined in O’Connell’s paper). Ultimately, as a framework, O’Connell may be too high level and difficult for program providers, who are not well versed in best practices in program evaluation to apply it at the practical level. At the same time, it could be clarified in accordance with widely accepted research and evaluation terminology and practices.

A first step would be to reframe some of the concepts to reflect more standardized terminology and more clearly orient users of the framework in an accepted research or business-planning context. For example, the term “need” is a bit vague — a better approach would be to use the term that explains what this sections gets at: “objective.” Secondly, “accountability” ought to be called “cost-benefit” as this is what it describes. The headings must bear a clearer resemblance to what is being done in each area.

There could also be more clarity around what questions need to be answered in each section in order to make this more user-friendly and easier to work through as a road map. For example, O’Connell identifies difficulties in collecting data as a problem facing financial education program providers, and yet the framework does not suggest concrete ways to deal with this issue or a vocabulary for

helping practitioners think this through (e.g., a checklist of potential ways to collect data would be helpful to guide user in thinking about potential approaches). Professor Angela Lyons, University of Illinois at Urbana Champaign, begins to address this in some tools and resources she recently developed and that she shared with me. While they are not yet publicly available, they will be free for users to download at the website of the Center for Economic and Financial Education. Her evaluation worksheets are quite detailed and provide clear direction for users working through their questions. I draw on these in the revised framework I propose here.

An additional barrier identified in O'Connell's paper is a lack of benchmarks, even though the proposed framework calls for analysis of both micro and macro impact. Again, more direction around questions providers ought to ask themselves in this area would be more helpful. For example, is there a way to address the macro impact question in the absence of a national strategy? This should be included or better addressed.

Reframing the steps

There are questions within each section that, as we have seen in Section II, have proved difficult for financial education program providers to address easily. Questions around what impact they want to have with their target populations are difficult to answer without agreement and discussion of larger issues. A better starting point begins with problem definition; in other words, "What is the problem?" This point was articulated by one veteran Canadian expert: "We haven't defined what the problem is, yet."

This framework could also address best practices in the area of data collection. For example, a question could address: what approach will you use to collect data? How will the data be used or interpreted? During the objective setting

step, what indicators will be used to show impact? How will you know your program has succeeded?

It also needs to be user-friendlier — if program providers are unfamiliar with the vocabulary of evaluation and lack expertise in this area, then whatever framework they follow must present a clear and logical path that illustrates the steps that must be taken. For example, Lyons' action framework includes data collection approaches and analysis. It clearly outlines steps users need to take in order to approach the evaluation and it is very clear in its use of terminology. While Lyons' worksheets are much more detailed than a high level framework needs to be, she offers up more questions to get organizations thinking not just about the program, but about what they want to achieve from the evaluation. Her approach is summarized as follows:

- **Defining the objectives of the program** — the purpose of the evaluation, program objectives, what you want to know and show, the target audience, the delivery method, who will use the evaluation and how
- **Selecting appropriate methods for data collection** — potential methods, the types of questions you want to answer, what you want to know about the program, indicators that show impact (including a checklist to choose from), indicators that measure program impact, anticipated and actual changes in behavior
- **Identifying and overcoming evaluation challenges** — the three biggest evaluation challenges, steps that can overcome them, available resources people who can help
- **Evaluation timeline** — key time goals for evaluation

- **Analyzing and disseminating the findings** — how and by whom data will be analyzed, what you hope to learn, potential impact statement for the program, how you will use findings to make improvements, how you will share and communicate findings.

Lyons' framework is more discursive: it includes specific questions that are part of a discussion process to help a program providers isolate their needs and move toward an evaluation. It is not recommended that the O'Connell framework go into this much detail, but some of these questions could be addressed and the framework could be informed by these concepts.

Revising the framework

We've looked at the challenges in the Canadian evaluation landscape and at O'Connell's framework in detail. We have established some areas where it could be repositioned and enhanced to meet the concerns and challenges of financial education program providers in Canada. Here is what a revised framework that is more actionable and clear could look like. Note this version draws heavily on both O'Connell's document and Lyon's evaluation worksheet (Appendix B).

1. **Defining the Problem** — This needs to take place at the design stage of a program or initiative. Understanding what we want to achieve at the outset will go a long way to ensuring we are evaluating/measuring the right things. Questions need not be complex but program providers should be able to answer them. For example, "What is the problem you are trying to solve? Who are we trying to reach? What issue(s) do they have (e.g., low savings rates, high bankruptcy rates, high credit card debt levels, job loss)."
2. **Setting the objectives** — Objectives should establish the opportunity for obtaining meaningful measures. How will your program address the

problem articulated in step one? What objectives are you trying to meet? Qualitative and quantitative measures should be addressed. In particular, consideration should be given to identifying potential behavioural and attitudinal outcomes. Objectives should be broken down for the program as a whole and for the different audience segments it addresses.

3. **Collecting the data** — Selection of appropriate indicators should follow objectives as set out in Step 2. What data do we want to collect and what method of data collection will yield the best result? Data collection should be guided by the following questions: What questions do we need to answer? What outcomes do we want to measure and with whom? What will be appropriate indicators of those outcomes? What evaluation techniques (qualitative and quantitative) will yield the best results (e.g. focus groups, user surveys, third party data, etc.)? An effective support for providers (as suggested by Lyons) is a checklist that provides information on data collection methods, questions to answer, and indicators to use to measure program impact, anticipated and actual changes in behavior.

4. **Assessing the cost-benefit/value for money** — This is especially important in Canada given the under-funding identified by providers in Section II. This type of evaluation can be used to make the case to funders (government, foundations, private sector funders) as well as to evaluate the effectiveness of third party program deliverers (e.g. George Brown College). Analysis should be done around the cost of the program and expected outcomes versus actual ones. It is important to ask what numbers and measures must be achieved in order to show its value.

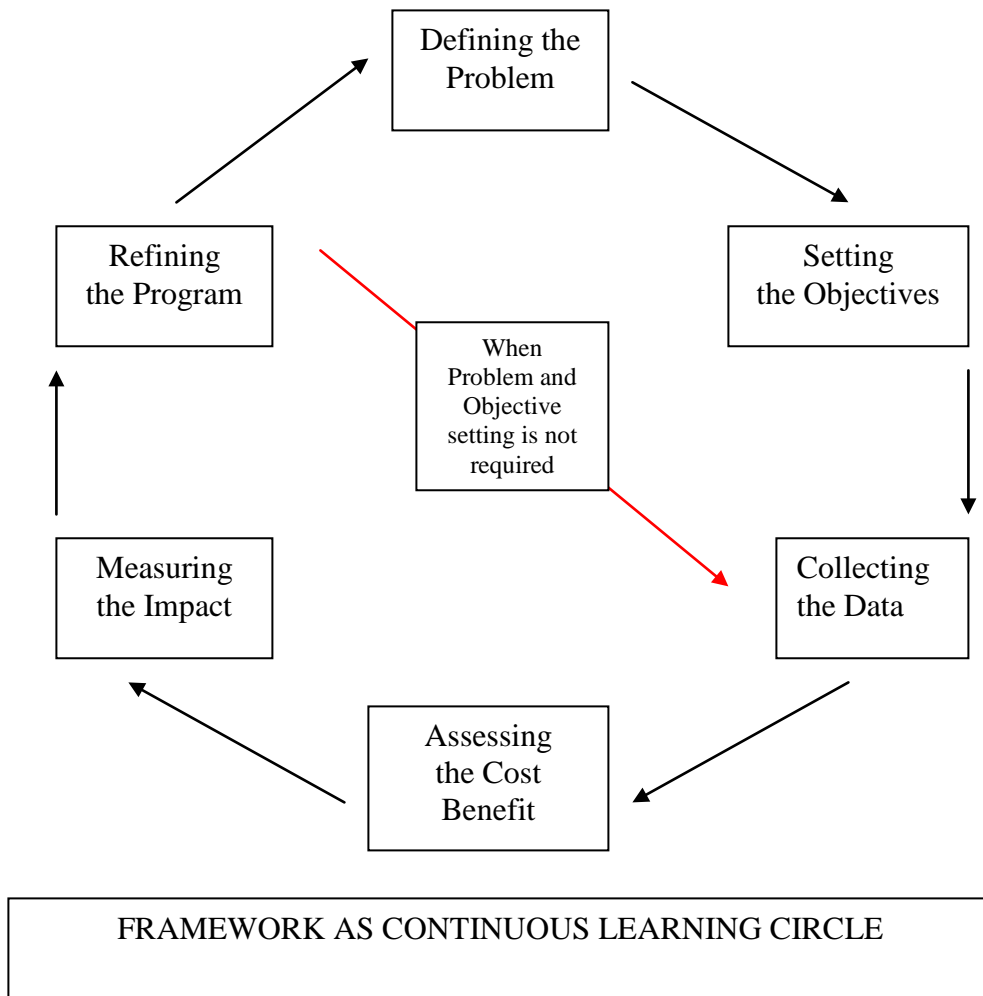
5. **Measuring the impact** — The focus is on looking at what O'Connell calls the micro and macro impacts of the programs. These can be restated as

organizational and marketplace. Has the program met its objectives in these areas? What impact is it having relative to the larger policy picture? Or, if no national policy or strategy is in place, how does the program complement existing initiatives? Does it avoid duplication?

6. **Refining the Program** — how can the evaluation data help make improvements to the program and fine-tune it? This basic question focuses particularly on program design and delivery and how the data collected can be analyzed, interpreted and applied to refining and adjusting programs to increase their effectiveness. More detailed analysis would link the assessment of different ways of delivering the education to outcomes.

Creating a learning circle

This rearticulated framework is by no means definitive. Instead, it is meant to act as an additional building block on O'Connell's work. More needs to be done to develop a framework that can be used widely in Canada — this is the subject of one of my recommendations. One consideration in this area would be to move away from a linear approach to evaluation to one that reflects the more fluid nature of the programs being evaluated — since the goal is to improve and constantly respond the needs and demands of Canadians, we could view evaluation best practices as supporting this. Indeed, a circle is a perhaps a better way to illustrate how all the steps work together (below).



Recommendations:

Based on the interviews and material reviewed in Section I and Section II, several recommendations can be made as next steps for FCAC to improve its own best practices around financial education programs and to promote best practices nationally.

Using a framework of best practices at FCAC

FCAC does not have a formal framework to guide its evaluation practices and yet it offers numerous financial education programs. A framework can help this organization set goals and metrics for its own programs at the planning stage. For this framework to operate within FCAC as an organization, consideration must be given to the fact that it is a government agency bound to follow its own standard practices around evaluation. Some of these can be used to enhance and expand the framework above. In addition, like most organizations in Canada, FCAC does not have a staff member who has been fully trained in the area of financial education program evaluation. Based on this, the Agency could take the following recommended steps to utilize the framework internally:

1. Build internal capacity: Train an existing staff member or hire a new staff member with experience in financial education program evaluation. Training an existing staff member need not be onerous — there are an increasing number of training programs in this area (the University of Illinois-Urbana offers free training seminars for providers of financial education programs, for instance).
2. Refine the framework: Use that expertise to revisit the framework above and determine the best way to use and modify it for FCAC's programs.
3. Put the framework in federal government context: FCAC is also bound to follow a standard set of practices around evaluation. Some of these can

also be used to enhance and expand the O'Connell framework for use at the Agency — in particular, the Guidelines of the Management, Resources and Results Structure policy contains a module called Developing a Performance Measurement Framework for Strategic Outcomes and Program Activity Architecture. One key area in this approach involves developing and articulating the context of the program and clearly stating its objectives, stakeholders and beneficiaries, and required resources. These points can be addressed within a high level framework (e.g., the context could be started in the objective-setting part of framework).

Sharing evaluation best practices in Canada

In order to successfully create a standardized approach to program evaluation in Canada, we need to set those standards as a country — that means consensus and agreement on key topics and issues that would be part of any framework. It also means pushing forward the research agenda in Canada to foster a better approach to data collection and, in turn, more effective and accurate evaluation. Specific topics include:

1. Consensus on problems that need to be addressed.
2. Consensus on objectives: We do not have a national strategy for financial literacy that programs ascribe to — we are lacking basic and shared definitions, consensus on objectives and what we are measuring, and on what impacts we want to achieve as a country. What audiences among the national population should be targeted? Where are the areas of need?
3. Consensus on indicators: What indicators should we be looking at? For example, do higher savings rates really mean a more financially literate population? Possibly not. We are about to get baseline information on knowledge levels — but as a country, how are we going to use this to provide

financial education programming? What are the useful indicators programs should be looking to as a result?

4. Better research and data: Organizations need awareness of new thinking around evaluation practices that can help them improve their practices of data collection and research. They need to know where to go for help and they need access to experienced and informed experts.
5. Discussion of cost-benefit analysis based on common objectives: Are costs the appropriate measure? A national media campaign is expensive and impact takes a long time to assess — how can cost-benefit be adequately assessed without a larger context?
6. Dialogue and information sharing on what works and what doesn't: Are we using the appropriate delivery channels for programs and are we avoiding duplication? Right now, most providers of financial education programs are using the same delivery mechanisms (brochures, seminars, Web, classroom material, etc). What is working and what is not? What opportunities are being missed? Dialogue and information sharing will open this up.

FCAC can help to foster dialogue with other financial education program providers in Canada. It can also push forward the quality of financial education program evaluation by sharing its own framework and by distributing and communicating the baseline data that it is compiling with Statistics Canada.

There are several steps FCAC could take to help organizations in Canada build capacity. Importantly, the Agency should not do this on its own — rather it should take a role in fostering dialogue, creating awareness of these issues and providing information and shared access to tools and expertise. To that end, the organization could:

1. **Develop, with other program providers, a thought leadership council or advisory board on program evaluation** — bring leading thinkers (academics and practitioners) together to review proposed best practices and create a detailed plan for evaluating Canadian financial education programs. This council/board will comment on, expand and enhance a draft framework for widespread use and will contribute ideas on how to measure indicators. It will bring theoretical background and expertise to the Canadian question of program evaluation.
2. **Develop, with other program providers, shared definitions and outcomes** — through a conference or symposium in which the findings would be published, a set of definitions could be determined and shared (including answering the question, “What is the problem?” Such a conference could be done as a launch point for FCAC or Statistics Canada research, for example.
3. **Share its own evaluation best practices.**
4. **Facilitate, with other program providers, ongoing research and communication in the area of evaluation** among program providers for peer-group comparison and analysis of what is working and what is not, either online or through regular meetings or working groups.
5. **Widely distribute baseline survey** and develop the best approach for information dissemination and ongoing use. How will it be branded? How can it provide a guideline or benchmark for other program providers? FCAC needs to develop a targeted communication around this so that it can leverage the data to help others get a “big picture” sense of financial literacy in Canada. A conference would be a good start.

Appendix A

Alison O'Connell's FEE Framework

1. **Need:** What objectives does the program try to meet? Is it to improve financial knowledge, skills or attitudes (generally or in specific ways), and/or to encourage a specific behaviour such as saving more in a retirement scheme or paying down debt? The hierarchy of impacts on individual participants should be considered here. Is the program focused on a well-defined small group (e.g., employees of an organization) or on a national population? Are there groups within the population that have different needs?

2. **Accountability:** How much is the program used and how much does it cost? This answers the money side of the value-for-money question. The numbers attending a seminar or using a website would be measured, and cost per unit could be tracked and compared to other initiatives.

3. **Fine-tuning:** How could the program be improved? This basic question focuses particularly on delivery, and at the very least it can use satisfaction surveys to help determine how well the participants and administrators rate delivery. More detailed analysis would link the assessment of different ways of delivering the education to measures of impact. This would help to understand, for example in a schools program, why and how some schools achieve better impacts, and so suggest ways in which the delivery in schools that are not doing so well could be improved.

4. **Micro Impact:** How effective is the program compared to its objectives? This goes back to what the program specifically set out to do (in "Needs," the first tier) and sees how successful it is on those points. A clear list of program objectives should directly suggest a list of measures, and a timeframe for

achievement of these targets will need to be decided. Some measures may be difficult or too costly to use, requiring the program administrators to make some hard decisions. This is where there may be a risk of substituting the easy-to-measure knowledge improvements for the harder-to-measure actual behaviour change. Measurement in this tier should help to answer the benefit side of the value-for-money question.

5. **Macro Impact:** What impact is the program having relative to the big policy picture, and compared to other possible initiatives? This is where measurement of the impact on the bigger macro issues is attempted, again, depending on the original program objectives. While national capability strategies may have such macro-impacts as their goal, community-based projects may not need to have any measurements in this tier. A government could use measurements in this tier to compare the impact and value for money from a financial education program to that of other initiatives.

Appendix B
Sample evaluation worksheet from
Centre for Economic and Financial Education

Evaluation Action Plan

Name of signature program:

Briefly describe the program:

A. Defining the objectives of the program

A1. What is the purpose of the evaluation? List the objective(s) of the program. At the end of the day, what do you need to know and what do you want to show?

1.

2.

3.

A2. Who is/are the target audience(s)?

A3. Is there anything you need to take into consideration when designing the evaluation for the target audience(s) (e.g., age, education, income, language and cultural barriers)?

A4. What is(are) your primary delivery method(s) (e.g., in-person, telephone, Internet)?

- In-person — group education
- In-person — one-on-one education
- Telephone — group education
- Telephone — one-on-one education
- Internet
- Educational materials
- Mass media (e.g., radio, television)
- Other: _____
- Other: _____

A5. Who will use the evaluation? How will they use it?

Who/users

How will they use information?

B. Selecting appropriate methods for data collection

B1. What evaluation method(s) will you use to collect impact data? (Check all that apply)

- Post-test only evaluation
- Retrospective pre-test
- Pre and post-test evaluation
- Follow-up survey
- Stages-to-change evaluation
- Focus groups
- Interviews
- Case studies
- Observations
- Stories/anecdotal evidence
- Tests of ability
- Other: _____

B2. What general types of questions will the evaluation seek to answer? List three to five topics or questions that represent what you really want to know about the program.

I would really like to know....

1.

2.

3.

B3. What types of indicators will you use to show program impact? (Check all that apply)

- Changes in satisfaction levels
- Changes in knowledge
- Changes in skills and confidence levels
- Changes in attitudes
- Changes in aspirations
- Anticipated or intended changes in behavior
- Actual changes in behavior
- Socio-economic changes
- Other: _____

B4. For each category below, list three or four specific indicators that you will use to measure program impact.

Knowledge:

1.

2.

3.

4.

Skills and Confidence Levels:

1.

2.

3.

4.

Anticipated and Actual Changes in Behavior:

1.

2.

3.

4.

C. Identifying and overcoming evaluation challenges

C1. What are your 3 biggest challenges to implementing a successful evaluation?

1.

2.

3.

C2. What steps can you take to overcome these challenges?

1.

2.

3.

4.

5.

C3. What are your available resources? Include both financial and non-financial resources.

Time:

Money:

Staff:

Evaluation resources and expertise:

C4. Are there others who can help you? List partners, stakeholders, funders, volunteers, and other professionals. Also, list their available resources.

Who are your partners, funders, stakeholders, etc.?

What available resources can they provide (financial and non-financial)?

C5. Given all of your constraints, briefly describe the type of evaluation that you think you can realistically implement.

D. Evaluation timeline

What is your timeline for completing the evaluation?

Date (Month / Year)

Key evaluation activities to be completed

E. Analyzing and disseminating the findings

E1. How will the data be analyzed (i.e., who will analyze it, what methods will be used, and how will the information be interpreted)?

E2. What do you hope to learn from the findings? What are the potential impacts?

E3. Based on what you hope to learn from your evaluation, write a potential impact statement.

As a result of participating in the program...

E4. How will you use the findings for program improvement and internal reporting?

E5. How will the evaluation findings be communicated and shared with others?

Who will you share the findings with?

How/where will the findings be presented?

APPENDIX C

Key informant interviews (fielded in February — March 2009):

- Terri Williams — investor education expert
- Dubis Correalis — Office of Financial Education, U.S. Treasury
- Angela Lyons — professor, University of Illinois
- Laurie Campbell — Credit Canada
- Patricia Bowles — British Columbia Securities Commission
- Jérémie Ryan — Financial Consumer Agency of Canada
- Jeanne Hogarth — U.S. Federal Reserve
- Elaine McCarthy — Financial Services Authority
- Tom Hamza — Investor Education Fund
- Perry Quinton — Canadian Securities Administrators/Ontario Securities Commission
- Gary Rabbior — Canadian Foundation for Economic Education
- Casey Cosgrove — Social and Enterprise Development Innovations
- Annamaria Lusardi — Princeton University
- Anne-Marie Poitras — Canadian Securities Administrators/L'Autorité des marchés financiers
- David Feslier, Retirement Commission, New Zealand
- Diana Crossan, Retirement Commission, New Zealand

Questions asked:

- What are your overall organizational objectives for offering financial education programs?
- What types of financial education programs do you currently provide?
- Do you currently have an evaluation process or framework for your financial education programs?
- What does your evaluation process involve? (e.g., feedback forms, follow-up phone calls, surveys etc).
- What impact do you seek to measure — what outcomes? What makes a successful program?
- Do you feel your current evaluation approach is effective? Why or why not?
- What would you like to measure that you are unable to evaluate right now?

References

Atkinson, Adele. *Evidence of impact: An overview of financial education evaluations*. Prepared for the Financial Services Authority. May 2008

Cakebread, Caroline. *Investor Education in Canada: Towards a Better Framework*. Commissioned by the Task to Modernize Securities Legislation in Canada, 2006.

Fox, Jonathan, Suzanne Bartholomae, and Jinkook Lee. "Building the Case for Financial Education," *The Journal of Consumer Affairs*. Summer 2005, Vol. 39, Number 1.

Lyons, Angela C. "Financial Education and Program Evaluation: Challenges and Potentials for Financial Professionals." *Journal of Personal Finance*, 2005, Vol. 4, Number 4.

Lyons, Angela C. and Urvi Neelakantan. "Potential Pitfalls of Applying Theory to the Practice of Financial Education." *Journal of Consumer Affairs*. 2008, Vol. 42, Number 1.

Lyons, Angela C., Lance Palmer, Koralalage S. U. Jayaratne, and Erik Scherff. "Are We Making the Grade? A National Overview of Financial Education and Program Evaluation." *The Journal of Consumer Affairs*, 2006, Vol. 40 Number 2.

O'Connell, Alison. "Evaluating the Effectiveness of Financial Education Programmes" (OECD working paper).

Web resources

Centre for Economic and Financial Education, University of Illinois at Urbana-Champaign: <http://financialed.ace.uiuc.edu>