Using RUFDATA to guide a logic model for a quality assurance process in an undergraduate university program

Paul David Sherman

Abstract

This article presents a framework to identify key mechanisms for developing a logic model blueprint that can be used for an impending comprehensive evaluation of an undergraduate degree program in a Canadian university. The evaluation is a requirement of a comprehensive quality assurance process mandated by the university. A modified RUFDATA (Saunders, 2000) evaluation model is applied as an initiating framework to assist in decision making to provide a guide for conceptualizing a logic model for the quality assurance process. This article will show how an educational evaluation is strengthened by employing a RUFDATA reflective process in exploring key elements of the evaluation process, and then translating this information into a logic model format that could serve to offer a more focused pathway for the quality assurance activities. Using preliminary program evaluation data from two key stakeholders of the undergraduate program as well as an audit of the curriculum’s course syllabi, a case is made for, (1) the importance of inclusivity of key stakeholders participation in the design of the evaluation process to enrich the authenticity and accuracy of program participants’ feedback, and (2) the diversification of data collection methods to ensure that stakeholders’ narrative feedback is given ample exposure. It is suggested that the modified RUFDATA/logic model framework be applied to all academic programs at the university undergoing the quality assurance process at the same time so that economies of scale may be realized.

Keywords: RUFDATA, Logic model, Quality assurance, Educational evaluation

1. Introduction

This article presents a framework to identify key mechanisms for developing a logic model blueprint that can be used for an impending comprehensive evaluation of a bachelor of applied science degree program at a university located in the province of Ontario, Canada. The evaluation is a requirement of a larger institutionalized quality assurance process of the university. A modified RUFDATA (Saunders, 2000) evaluation model is applied as an
initiating framework to assist in decision making to provide a guide for conceptualizing a logic model for the quality assurance process. This article will show how an educational evaluation is strengthened by employing a RUFDATA reflective process in exploring key elements of the evaluation process, and then translating this information into a logic model format that could serve to offer a more focused pathway for the quality assurance activities. Preliminary input into the targeted academic program's operations from recently conducted key stakeholder questionnaires, as well as a partial curriculum audit, illustrate the value that stakeholder inclusivity and varied data collection methods have in the evaluation process.

The following section provides some background to the evaluation's focus and the author's connection with the target of evaluation. The article then situates the evaluation within the research literature related to RUFDATA and logic model theory, and describes the methodology used to generate preliminary evidential data for this project. A modified RUFDATA framework is then presented that leads to the construction of a logic model to be used as a blueprint for the quality assurance evaluation of the program.

1. Background

The university's “Institutional Quality Assurance Process” (IQAP) provides the context for this article, as all Ontario publicly assisted universities are mandated to implement an IQAP that requires all academic programs within a university “to articulate learning outcomes that are appropriate to the discipline and are consistent with the institution's mission, degree level expectations and academic plans (University of Guelph, 2015, para. 2). A significant aspect of the quality assurance process is a self-study conducted by the head of each academic program or department. One aspect of the self-study is an evaluation of the program's activities and accomplishments, with an expectation that faculty, staff and students participate in the analysis and reflective discussion (University of Guelph, June 3, 2011, p. 27). The expectation for faculty, staff and students to participate in the evaluation process is consistent with the inclusive evaluative approach espoused by Saunders (2006, p. 203), who advocates that stakeholder inclusion be “consciously built into evaluation designs”. Saunders intends this process to mean that stakeholders do not simply participate in program evaluation by responding to a set of pre-established questions or engaging in scripted discussions about the program, but actually have a role in designing the evaluation process. This “expansive presence”, which places a premium on inclusivity, allows for “more accurate and authentic accounts of experience” and provides for the depiction of “the legitimate voice of this group of stakeholders” (Saunders, 2006, p. 203). At this time, it is uncertain how or to what extent the
various stakeholders of the university’s academic programs will be involved in the IQAP. This article explores opportunities for stakeholder inclusivity and expansive presence.

The targeted academic program is one of seven programs currently offered at the university, with its principal objectives to “prepare students to work with individuals and families in a variety of social service contexts” (University of Guelph/Humber College, May 31, 2000, para. 1), and to position graduates “to pursue graduate studies in a variety of interdisciplinary programs including family therapy and social work” (University of Guelph/ Humber College, n.d., para. 1). The program was developed from consultations in early 2000 with a cross-section of local social service organizations who identified a range of relevant theoretical approaches, knowledge, values, and skill sets they believed an ideal candidate should possess to intervene appropriately with their client populations. A four-year specialized curriculum was subsequently implemented in 2003, leading to an Honours Bachelor of Applied Science degree in the program’s area of specialty.

Faculty in the program possess at minimum a Masters’ level degree in social work or related discipline. As the vast majority of instructors in the program are sessional, this provides the opportunity to hire highly experienced social service managers and clinicians who can integrate relevant theory with real-life experiences from the field into the classroom environment. As a significant element of the program involves experiential learning through extensive participation in field practice, the program has partnerships with over 150 community social service agencies that offer its students supervised practice with a variety of client populations.

In my position as administrative head of the program, I carry overall responsibility for the staffing and delivery of the curriculum. As a senior member of the university's management team, I am also responsible for various evaluative aspects of the program, including conducting the program's forthcoming self-study component of the aforementioned Institutional Quality Assurance Process. In preparation for this process, I explored a framework for the self-study evaluation that informs a process for meaningful inclusivity of key program stakeholders, as well as provides a focus for the development of a logic model to guide the evaluation process.

The RUFDATA approach to evaluation planning serves as the framework for guiding the logic model development. RUFDATA originated from research on developing an approach for initiating novice evaluators into the evaluation planning process (Saunders, 2000). The logic model concept is derived from evaluation practices that seek to identify the interactions of multiple variables among program activities and outcomes (Newton, Poon, Nunes, & Stone, 2013).
Logic models serve as a road map for managing an evaluation project as well as provide an excellent tool to promote stakeholder communication (Conrad, Randolph, Kirby, & Bebout, 1999).

The next section discusses the evaluation framework through brief examinations of the RUFDATA approach and logic model theory.

1. Framing and guiding the evaluation process

1. What is RUFDATA?

RUFDATA is the acronym used by Saunders (2000, p. 9) that “involves a process of reflexive questioning during which key procedural dimensions of an evaluation are addressed”. Saunders suggests that RUFDATA provides a framework for consolidating the reflexive process and initiating the planning process that shapes the evaluation activities. The framework is as follows:

• What are the Reasons and purposes for this evaluation?
• What will be the Uses of the evaluation?
• What will be the Foci of the evaluation?
• What will be the Data and evidence?
• Who will be the Audience?
• What will be the Timing?
• Who will be the Agency conducting the evaluation?

Apropos to Logic Model theory as well as a significant consideration in the forthcoming quality assurance process, I find that the RUFDATA model does not sufficiently allow for the consideration of resource requirements (human, physical, financial) when framing evaluation activity. Therefore, for the purposes of this project, an additional “R” (What Resources will be required to conduct the evaluation?) has been added to the Saunders acronym. Responses to all RRUFDATA questions provide the basis for decisions that can frame the evaluation activity. In this sense, RRUFDATA can be used as a planning tool that provides a framework within which the evaluation process might proceed, as well as help guide the construction of a logic model that illustrates a graphic blueprint for the evaluation process.

1. What is a logic model?

Logic models aim at articulating a particular social intervention’s theory of change, or the relationship between the intervention’s resource investments, activities, outputs and outcomes that produces social change (Price, Alkema, & Frank, 2009). Newton et al. (2013, p. 90) clarify that “a logic model makes
transparent the theory of action of a program, that is, how program activities or processes are supposed to work in order to accomplish the program goals or outcomes. The widely consulted Logic Model Development Guide (W.K. Kellogg Foundation, 2004, p. 1) describes the logic model as “a systematic and visual way to present and share your understanding of the relationships among the resources you have to operate your program, the activities you plan, and the changes or results you hope to achieve.” Similarly, Conrad et al. (1999, p. 18) define the logic model as “a graphic representation of a program that describes the program’s essential components and expected accomplishments and conveys the logical relationship between these components and their outcomes”. Its most common usage is to explicitly outline from a program’s start to completion what the program’s resources and activities are that will enable it to achieve its desired results (Price et al., 2009). There is a general consensus amongst professional evaluators that logic models are an effective method for ensuring program success and enhancing opportunities for investment in the program (W.K. Kellogg Foundation, 2004).

The basic elements of a logic model are its inputs (resources or investments that support the program), activities (program implementation), outputs (evidence or products of the activities), and outcomes (changes as reflected in the outputs). These key components are then woven together by identifying intervening steps between utilizing the inputs, implementing the activities, measuring the outputs, and achieving the outcomes. In doing so, logic models “generally depict the logical series of events from program intervention to program outcomes” (Millar, Simeone, & Carnevale, 2001, p. 74). Similar to the aims of RUFDATA, logic models are useful for facilitating planning and evaluation. Conrad et al. (1999, p. 20) note that a logic model “will describe the program in such detail that it will clarify the evaluator’s task of determining what data should and should not be collected as a part of a process evaluation”. Other benefits identified with logic models are; building a common understanding of the program and expectations among stakeholders, program design and improvement, enhanced collaboration and support for the program, and promotion of clear communications about the program (McLaughlin & Jordan, 1999; Millar et al., 2001; Price et al., 2009). For example, a logic model process was implemented within a citywide welfare department in which disagreements and misunderstandings existed among stakeholders with respect to required inputs, program components, program plans, and implementation practices. The logic model developed for this project “facilitated communication, cooperation, and shared understanding among different levels of management and staff within the Welfare Department” (Savaya & Waysman, 2005, p. 94). For the
purposes of this project I address each of the modified RUFDATA questions to provide a framework for developing a logic model that more fully responds to the target of the project, i.e., a blueprint for providing a comprehensive response to the IQAP self-study of the targeted academic program.

1. **Methodology for preliminary data collection and analysis**

To provide some initial data from key stakeholders with which to inform the RUFDATA framework and eventual construction of a logic model for the quality assurance process, current program students and faculty were asked for their feedback about important program components such as curriculum, pedagogy, and attainment of program learning objectives. Three principal data collection methods were used to generate evidence for this project. The first two methods involved a student satisfaction/feedback questionnaire and a comparable questionnaire for instructors. The majority of survey items were presented in a Likert-scale format requesting the respondents to answer questions that either rated their level of satisfaction or their level of agreement. A number of questionnaire items were constructed using information gleaned from the university's archival documents related to the program's development and initial implementation, as well as specific program documents (University of Guelph-Humber, 2014/15). This archival information was important for the questionnaire construction in order to align the evaluation with the original intent and purposes of the academic program. For example, a program proposal document (University of Guelph/Humber College, May 31, 2000, p. 2) identified a number of student core competencies to be fulfilled through the program's curriculum, such as “communicate clearly and effectively”, “interact with others in groups or teams”, and “understanding of theories and concepts”. The competency items were translated into survey questions whereby respondents could rank their level of satisfaction (or agreement) of achievement in these various areas. Other student questionnaire items asked respondents to rate their level of satisfaction or agreement with: their overall experience in the program, various units of support affiliated with the program (e.g., academic advising, library services), program objectives, curriculum components, instructor practices, and participation in extracurricular activities. Finally, open-ended questions were included that provided an opportunity for students to list strengths and weaknesses of the program, along with any other comments they wished to add. The open-ended questions offered an opportunity for the respondents to provide important information, unconstricted by a forced Likert-scale format, that could be beneficial to the overall design of the evaluation process. The instructor questionnaire was constructed in a similar fashion to the student questionnaire, whereby respondents were asked to rate their perceptions of
students’ core competencies, various aspects of the curriculum and program objectives, and level of student responsiveness and engagement in their courses. The instructor questionnaire also posed questions related to their level of satisfaction (or agreement) with teaching in the program and the quality of student work, as well as the same open-ended questions asked of the student respondents.

Both student and instructor questionnaires were constructed using the Qualtrics on-line survey platform. This allowed for a convenient process for distributing the questionnaires as well as a vehicle for analyzing the data through basic statistical analysis provided by Qualtrics. All respondents were sent an e-mail message by the author in his position as head of the program. The e-mail message contained an explanation about the purpose of the survey and a hyperlink to the on-line survey. The initial page of the survey advised respondents that their participation was completely voluntary and anonymous, and they could cease to complete the survey at any time or decline to answer any question. Further, respondents were advised that submitting the survey constituted their consent to participate in the survey, and finally, all information collected would be analyzed in aggregate form.

Three separate e-mails were sent to students by way of the university’s program listserv, which consists of all currently active program students (N= 279 recipients of the e-mail). The initial e-mail requesting participation was sent after the conclusion of the semester’s final exam period (leading into the summer break) on April 17, 2015, followed by two reminder e-mails distributed on April 25 and May 11. The survey closed on May 16, 2015. A total of 113 surveys were submitted resulting in a 40.5% response rate, with response rates per question ranging from 27% to 100%. All questions had fairly high response rates (above 79%) with the exception of the final open-ended question (27%). All survey responses were used in the analysis, except those surveys that did not answer at a minimum Question 2 (How satisfied or dissatisfied are you with your overall experience in the program?). As a result, five surveys were deleted from the database and consequently not included in the analysis.

By way of their university e-mail addresses, two separate e-mails were sent to 16 instructors who had taught in the program during the most recent academic year (2014–15). The initial e-mail requesting participation was sent on April 20, 2015, followed by a reminder e-mail distributed on April 27. The survey closed on May 16, 2015. A total of 14 surveys were submitted resulting in an 87.5% response rate, with response rates per question ranging from 57% to 100%. All questions had very high response rates (above 92%) with the exception of the final open-ended question (57%). All survey responses were used in the analysis.

The third method of data collection involved an audit of all core academic courses
in the program’s curriculum. The purpose of this audit was to provide accurate and current information about the program’s coursework demands that could be matched against the perceptions of the survey respondents. A total of 34 courses were scanned for information concerning the types of assessment methods used to grade student work (e.g., tests, written assignment), the format of the assessment methods (e.g., major paper, group presentation), and the expectations for course readings (i.e., required, optional or supplementary). A visual scan of the courses was conducted by the author using the approved course syllabi for the most recent academic year. Where information in the course outlines was unavailable or unclear (e.g., if the written assignment was a major or minor paper in terms of page count), the course instructor was contacted for accuracy. Frequency counts were collected for all information collected from the course outlines. Data collected from the student and instructor surveys as well as from the audit of the course outlines were examined using simple statistical analysis (response count, percentage, mean, and standard deviation). Qualtrics provides an initial analysis of variance using a Chi Square test. As Qualtrics’ analysis of the questionnaire data showed no statistical significance for any cross-tabulated variables, there was no indication that a more intricate data analysis was warranted or necessary. Textual data generated from the on-line surveys’ open-ended questions were scanned for any significant or frequently occurring themes.

1. Findings from the data analysis

Responses from the student and instructor surveys provide a wealth of material related to the reason and purposes of the IQAP. Feedback from these two key stakeholder groups about program objectives, curriculum, teaching and evaluation strategies, and level of program support should weigh fairly significantly in the overall review of the program, as well as help to indicate where in the evaluation process these key stakeholders might be situated. Table 1 shows a small sampling of the student survey results that are particularly relevant to the IQAP evaluation purposes.

Additional comments from the student surveys indicate that particular program strengths identified are its offering of field placement experience, its professors, and its curriculum. Students commented on program weaknesses related to the challenges they experience securing their field placements and the lack of recognition for the degree they earn upon graduation, particularly that it is not a Bachelor of Social Work degree, despite the fact that program curriculum is consistent with undergraduate social work programs.
Table 1
Sampling of student survey responses.

<table>
<thead>
<tr>
<th>Survey items</th>
<th>Agreed/ strongly agreed</th>
<th>Somewhat agreed</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand the program's objectives</td>
<td>69%</td>
<td>20%</td>
<td>89%</td>
</tr>
<tr>
<td>Felt supported by the program</td>
<td>54%</td>
<td>21%</td>
<td>75%</td>
</tr>
<tr>
<td>Curriculum offers balance between theory and practice</td>
<td>65%</td>
<td>25%</td>
<td>90%</td>
</tr>
<tr>
<td>Program offers range of courses relevant to social work</td>
<td>64%</td>
<td>22%</td>
<td>86%</td>
</tr>
<tr>
<td>Professors convey the course subject matter effectively</td>
<td>60%</td>
<td>32%</td>
<td>92%</td>
</tr>
<tr>
<td>Professors' teaching is stimulating</td>
<td>33%</td>
<td>41%</td>
<td>74%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Survey items</th>
<th>Satisfied/very satisfied</th>
<th>Somewhat satisfied</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall experience in the program</td>
<td>53%</td>
<td>25%</td>
<td>78%</td>
</tr>
<tr>
<td>Overall quality of teaching in the program</td>
<td>49%</td>
<td>22%</td>
<td>71%</td>
</tr>
<tr>
<td>Ability to work effectively with others</td>
<td>74%</td>
<td>15%</td>
<td>89%</td>
</tr>
<tr>
<td>Understand core social work concepts and principles</td>
<td>78%</td>
<td>10%</td>
<td>88%</td>
</tr>
<tr>
<td>Acquisition of work-related knowledge and skills</td>
<td>64%</td>
<td>23%</td>
<td>87%</td>
</tr>
<tr>
<td>Ability to write clearly and effectively</td>
<td>70%</td>
<td>14%</td>
<td>84%</td>
</tr>
</tbody>
</table>

Table 2 provides a comparable sampling of responses from the instructor survey. Additional comments from the instructor surveys indicate no particular consensus on program strengths, however, the curriculum diversity, social work-related content, and supportive work environment were identified more frequently than other strengths. Again, there was no particular consensus on program weaknesses, however, ambiguity around the program's degree recognition and lack of full-time instructors were noted more frequently than other weaknesses.

While it is not within the scope of this article to provide a detailed analysis of the survey responses, illustrations from the data give evidence for the value of
key stakeholder inclusivity and diversified data collection methods in the evaluation process. Discussion of these issues will be addressed in the next section.

**Table 2**
Sampling of instructor survey responses.

<table>
<thead>
<tr>
<th>Survey items</th>
<th>Agreed / strongly agreed</th>
<th>Somewhat agreed</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students understand the program's objectives</td>
<td>42%</td>
<td>50%</td>
<td>92%</td>
</tr>
<tr>
<td>Students are supported by the program</td>
<td>92%</td>
<td>8%</td>
<td>100%</td>
</tr>
<tr>
<td>Curriculum offers balance between theory and practice</td>
<td>100%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Program offers range of courses relevant to social work</td>
<td>79%</td>
<td>21%</td>
<td>100%</td>
</tr>
<tr>
<td>Students feel professors convey the course subject matter effectively</td>
<td>92%</td>
<td>8%</td>
<td>100%</td>
</tr>
<tr>
<td>Students feel stimulated by their professor's teaching</td>
<td>92%</td>
<td>8%</td>
<td>100%</td>
</tr>
<tr>
<td>Students understood core social work concepts and principles</td>
<td>85%</td>
<td>15%</td>
<td>100%</td>
</tr>
<tr>
<td>Students are able to work effectively with others</td>
<td>75%</td>
<td>23%</td>
<td>98%</td>
</tr>
<tr>
<td>Students acquired work-related knowledge and skills</td>
<td>92%</td>
<td>8%</td>
<td>100%</td>
</tr>
<tr>
<td>Students are able to write clearly and effectively</td>
<td>62%</td>
<td>31%</td>
<td>93%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Survey items</th>
<th>Satisfied/very satisfied</th>
<th>Somewhat satisfied</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall teaching experience in the program</td>
<td>86%</td>
<td>14%</td>
<td>100%</td>
</tr>
<tr>
<td>Overall quality of student work in the program</td>
<td>64%</td>
<td>29%</td>
<td>93%</td>
</tr>
</tbody>
</table>
1. Discussion

This section will answer the questions posed by the RRUFDATA framework as related to the IQAP, followed by the development of a logic model aligned with the RRUFDATA responses that might provide a more focused progression for the IQAP.

1. Framing The Evaluation Using RRUFDATA

Reasons and purposes for the evaluation: The principle motivation for conducting a comprehensive evaluation of the targeted program relates to an institutional requirement by the university for each of its academic programs to provide a quality assurance review and report. The main purpose of the review is to assess, (1) the degree of alignment between the program and the university’s mission and strategic directions, (2) the appropriateness of the program’s academic objectives, pedagogical methods and evaluation strategies, (3) the adequacy of available resources to support the program, and (4) the program’s indicators of learning outcomes, including applicable governmental and professional standards (University of Guelph, June 3, 2011, p. 15).

An additional purpose for the evaluation is to obtain key stakeholder’s feedback of their experience and satisfaction with the program, particularly those who are directly impacted by it. Lastly, although not explicitly stated in the IQAP document, an important reason for the evaluation is the potential learning benefits accrued to those responsible for the leadership and delivery of the program. Findings from the review could lead to recommendations for changes to the program to bring its operations more inline with the requirements of the university, if indicated, as well as signal enhancements to various program components; for example, curriculum relevancy, resource allocation, and student and faculty engagement.

Resources required for the evaluation: Any evaluative endeavour as comprehensive as that required for the IQAP requires a host of resources to ensure its successful completion. These include, but are not limited to, human resources from the university signaled in the IPAQ document chaptered “Protocol For Cyclical Department/School Reviews” (University of Guelph, June 3, 2011, p. 14), human resources from the university required for the self-study component of the evaluation, key stakeholders to provide input into the evaluation, and physical resources required by all the aforementioned human resources. A financial budget is required to allocate any required remuneration, if indicated, and materials expense requirements.

Uses of the evaluation: The IQAP review will provide the university with
useful information to consider in determining the extent that the objectives of the review are fulfilled. This information, considered collectively with other university academic programs conducting similar reviews, will be of assistance in strategic planning, public relations and recruitment, program and curriculum improvements, and resource enhancement. A potentially wider external application of the assessment would see it utilized in some manner to inform other higher education institutions that may wish to replicate certain aspects of the targeted program’s curriculum and delivery.

Foci of the evaluation: All relevant aspects of the targeted program are subject for review and evaluation to identify strengths, weaknesses, opportunities, and challenges. These evaluative aspects include program resources (staffing, budget, physical/material), collaboration with other partners (cross-institutional, internal, community), curriculum, and field placement mechanisms.

Data and evidence for the evaluation: Key stakeholder surveys and focus groups would be a primary source of evaluative data. To enhance the capacity of the surveys to capture meaningful stakeholder input that aligns with the purposes of the IQAP, the student and instructor surveys used in this article would be reviewed through a process of stakeholder feedback, and revised as necessary before distribution to a wider sampling. Small focus groups and semi-structured interviews would augment the survey and allow for personal narratives that might not otherwise be captured in the survey tool. A similar process would occur for other stakeholders, such as community agency partners who provide field placement experiences for students.

Audience for the evaluation: Judging from the reasonable survey response rate from students (40.5%) and very high response rate from instructors (87.5%), there appears to be a sound level of engagement and investment in the program by these significant stakeholders. No doubt they would have an interest in the results of the evaluation. Additional audience members would include the university’s administrative personnel, cross-institutional departments that intersect with the program, internal departments, prospective students and their families, community agency partners, and relevant governmental departments and accreditation bodies.

Timing of the evaluation: While it is understood that the schedule for the program review has been somewhat vaguely determined as 2017/18, it is unclear at this point the specific schedule for beginning and completing the evaluation review. Once a timeframe is established, the program will most assuredly follow the work schedule established by the university’s management committee.

Agency conducting the evaluation: The university’s IQAP delineates various
roles within the review process. Direct oversight for each review falls upon the university's Internal Review Sub-Committee, who receive the self-study conducted by the individual academic programs or units.

1. Quality assurance process logic model

By using the modified RUFDATA framework to conceptualize the basic components surrounding the evaluation, the design of a logic model will provide a useful graphical representation and map of the quality assurance process. The logic model can be used to guide the process in a sequential and methodical manner through the stages of designating the initial resources required to conduct the evaluation (inputs), to the activities to be implemented with the resources, to the desired products of these activities (outputs), and finally to the evaluation's results (outcomes). Taken together, the logic model will help sort the information generated in RRUFDATA into a blueprint for carrying out the IQAP review required by the university. Fig. 1 presents the logic model in its entirety, and is followed by an elaboration of the four stages of the logic model. The horizontal arrow at the bottom of the diagram indicates the assumptive logic involved in the model for this evaluation process. The W.K. Kellogg Foundation (2004, p. 2) provides guidance on how to read a logic model: "When 'read' from left to right, logic models describe program basics over time from planning through results. Reading a logic model means following the chain of reasoning or 'If . . . then . . . ' statements which connect the program's parts". The chain of reasoning, or logic of the model below can be read as, “If these inputs are provided . . . then these activities are implemented . . . if these activities are implemented . . . then these outputs are attained . . . if these outputs are attained . . . then these outcomes are achieved".

Figure 1 Logic Model for Institutional Quality Assurance Process (IQAP)
1. **Inputs**

The RRUFDATA categories of “Reasons and purposes”, “Resources”, and “Audience” provide guidance for this initial stage of the logic model. There is a fair degree of overlap between the human resources and audience of the evaluation, although certain individuals who might be interested in the evaluation results would not necessarily be invested or involved in providing input into the process or content of the evaluation. Some inputs are pre-defined by the IQAP mandate, such as the university’s Internal Review Subcommittee (IRS), external consultants, and students. Inclusivity and completeness of the evaluation would rest not only on the variety of stakeholders engaged and the type of input provided, but also in the helpful design of the evaluation questions to be asked of various stakeholders. Saunders (2006), for instance, argues that the program recipients’ voice should be front and center in evaluation design, as their experiences in the program authenticate, validate, improve and strengthen the evaluation’s design. Therefore, the voices of students in the program, and perhaps faculty and industry partners as well, in providing input into the evaluation design itself, would well serve the evaluation process and outcomes. In this way the evaluation is better able to uncover meaningful information that could be used to improve the program. An argument, therefore, is made to invite stakeholder voice into the evaluation design process by including representatives of the various key stakeholder groups to participate in an ad hoc working group charged with the responsibility of providing input into certain data collection tools (e.g., survey and interview questions). Saunders (2006, p. 200) suggests undertaking a process in which, “representatives of the target group are provided with an opportunity to present the questions or indicators that will, in their experience, yield a good depiction of what may happen to them or will potentially happen”.

2. **Activities**

RRUFDATA's “Data and evidence” as well as its “Timing” categories are useful for this next logic model stage as both categories give guidance as to what protocols are required for collecting evaluation data as well as outlining timeframe parameters for conducting the evaluation. Surveys, focus groups and stakeholder interviews are fairly standard methods for garnering evaluative data, but depending on their deployment can be relatively time consuming and intensive procedures. The presence and extent of their various usage will directly relate to the types and numbers of human resources allocated for the Input phase, as well as the degree of physical and financial inputs allotted to the evaluation process. It would be advantageous to both the evaluation process and its outcomes to incorporate a sufficient and reasonable number of these activities with key
While offering useful data, surveys alone may not provide the necessary scope of input upon which to make recommendations and decisions for change. Regarding focus groups, for instance, Punch (2014, p. 147) recommends that “Well-facilitated group interaction can assist in bringing to the surface aspects of a situation that might not otherwise be exposed”. The benefit of giving subjective voice through interviews is well illustrated through the data generated from the student surveys for this project. For example, the data indicates that students have an extremely high level of concern and complaint about the level of support they receive in securing their field placements. In order to properly assess this issue and take remedial action, interviews with students, field placement instructors, and field placement staff in particular should be conducted to tease out the specific areas of concern and challenge. One approach for collecting interview data might be to assemble a focus group consisting of representatives from all three of these stakeholder groups. However, it is clear from the student survey responses that there is potential for volatility, and so separate discussions with all three constituent groups would likely generate more productive information for assessing the issue. This approach would also promote the garnering of differential perspectives from each constituent group that might not otherwise occur in an environment where members of all three groups participate together. Another example from the survey data that highlights the value of collecting stakeholder anecdotal evidence through interviews or focus groups relates to differing perceptions of students and faculty concerning pedagogy and curriculum. When asked to rate their level of satisfaction with the program’s contribution to their understanding of social justice, 79% of students responded “satisfied” to “very satisfied”. When instructors were asked to rate their level of agreement that the program contributes to the students’ understanding of social justice, 62% responded that they “agreed” or strongly agreed”. When fairly discrepant perceptions of this nature appear, as they typically do, representative stakeholder interviews would be highly instructive in assessing the differing experiences. An audit of the program’s curriculum would contribute significantly to the evaluation process, not only because it is though the curriculum that learning objectives are attained and student success is achieved, but it would also provide relevant data in concert with student and faculty perceptions and experiences with the curriculum. Another illustration from the data collected for this project shows the value of examining existing program documentation. Students and faculty were asked through their respective surveys to rate specific components of the program. Over half of all students responded that the curriculum requirement for “group assignments” was “too much”, whereas 100% of
instructors responded “about right” for this component of the program. As well, nearly half of all students responded that the demand for “course readings” was excessive, while just over 50% thought the demand was “just right”. By contrast, 75% of instructors replied “about right”, and 25% replied “too little” to the curriculum’s requirement for course readings. Data from the curriculum audit performed by the author provides a course and semester breakdown of the number of group assignments and required course readings in the curriculum. Again, with the survey data showing an apparent discrepancy between student and instructor perception, plus actual curriculum evidence, interview activities conducted in the evaluation process would provide opportunity for fuller discussion and are likely to elicit more meaningful data for overall assessment.

3. Outputs
   The logic model’s outputs are informed by RRUFDATA’s “Foci” and “Agency” categories. The chief product of the evaluation is the self-study conducted by program staff and eventually delivered in report form to the oversight committee at the university. There are intermediary reporting requirements throughout the quality assurance process until a final report with actionable recommendations is ultimately prepared by the university’s Internal Review Committee and, subject to required institutional approvals, is disseminated to those parties listed in RRUFDATA’s “Audience” category.

4. Outcomes
   The RRUFDATA framework’s “Uses” and “Audience” categories serve to guide the logic model’s outcomes. The IQAP mandate identifies three specific uses for the Final Assessment Report, namely to,” (a) Identify significant strengths of the unit and its respective programs, (b) Identify opportunities for program improvement and enhancement, (c) Prioritize the recommendations that are selected for implementation” (University of Guelph, June 3, 2011, p. 20). It is expected that implementation activities by the university and the program will follow over time from the release of the final report. Examples of discussion and activities following from the report could be curriculum development, methods of student assessment, program policies, and instructor orientation and skill development. Certainly, the diverse stakeholders identified through RRUFDATA’s “Audience” category and the logic model’s corresponding “Inputs” stage will have varying degrees of interest in the IQAP outcomes.

Conclusion and next steps
   This article has presented a methodology for facilitating a pre-defined quality assurance process for undergraduate programs of a university located in Ontario,
Canada.

The facilitated evaluation process presented by the author makes use of a modified RUFDATA framework to guide the development of a logic model that could serve to offer a more focused pathway for quality assurance activities at the author’s university, and perhaps generalizable to other similar processes in higher education institutions.

Using preliminary program evaluation data with two key stakeholders as well as an audit of the curriculum’s course outlines, a case is made for (1) the importance of inclusivity of key stakeholders participation in the design of the evaluation process to enrich the authenticity and accuracy of program participants’ feedback, and (2) the diversification of data collection methods to ensure that stakeholders’ narrative feedback is given ample exposure. This is especially important when the perceptions and experiences of different types of stakeholders (e.g., students, teachers) may vary from one another and/or vary from program documentation (e.g., delineated curriculum components).

It has been suggested that the quality assurance process at the author’s university be conducted as an aggregate of all programs, as opposed to replicating the process for each program separately. This is likely the most economical and efficient process for the university’s stable of programs, as they are all fairly similar in structure, with perhaps curriculum content and key stakeholders presenting the most common dissimilarities from program to program. In the RRUFDATA model then, all categories within the framework would apply to each academic program on a level basis, with the exception of certain “Resources” and “Audience”, although even for these two categories there would still exist some overlap amongst the programs. All other RRUFDATA categories would apply equally to all seven programs. Within the logic model presented in this paper, only the initial stage of “Inputs” would require some variation between the programs, with the remaining three stages being applied relatively consistently across all programs. Utilizing the RRUFDATA framework and logic model process described in this paper with all programs at the university in aggregate form is a reasonable approach and would realize economies of scale in virtually all aspects of the quality assurance process.

Lastly, although RUFDATA is mainly concerned with evaluation planning, it might also lend itself to providing guidance to the development of a logic model for the eventual implementation of the IQAP’s Final Assessment recommendations. This would be a process worth exploring when the opportunity and time approaches.

Acknowledgements

The author wishes to acknowledge the support of the Department of Educational Research, Lancaster University, U.K., and to thank Dr. Jo Warin,
Lancaster University for her helpful critique of the draft article.

References


