

Bridging the Gap 1.0 Report

Background

In the Spring of 2020, Bow Valley College (BVC) undertook a project funded through the Future Skills Centre. *Bridging the Gap* (BTG), a national, two-year project was originally expected to be completed by end of June 2022. Canada West Foundation was engaged as an external project advisor and reporter.

The overall intention of the project was to improve the employability of job seekers by developing micro credentials that met the specific hiring needs of employers. To accomplish this goal, BVC partnered with colleges located across the country.

The methodology included a series of steps. First, college staff would identify job roles that their local employers found difficult, yet important, to fill. Then project partners would develop competency-based job profiles and the associated competency profiles (with a breakdown of tasks and sub-tasks).

Once the profiles were completed, an online assessment of these competencies would be developed.

College staff would go on to curate learning that assists job seekers to build the competencies required by their employers. The intention was not that they would build courses and programs but rather that they compile learning from other sources.

Candidates with an interest in the job role would next be recruited, undergo the assessment and then fill any competency gaps through the prepared curated learning opportunities. The cycle of assessment and learning would continue until they successfully completed all components of the assessment, at which point, they would receive the micro credential. If the candidate was assessed as competent in all the competencies at first assessment, then the micro credential would be awarded without any further learning.

Ultimately, job seekers would be eligible to be hired by the employers. The project was intended to meet the needs of people who had difficulty in entering or staying attached to the labour force.

A technology-based flexible learning platform would be developed to facilitate the whole process seamlessly.

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FSC is a forward-thinking centre for research and collaboration dedicated to preparing Canadians for employment success. We believe Canadians should feel confident about the skills they have to succeed in a changing workforce. As a pan-Canadian community, we are collaborating to rigorously identify, test, measure, and share innovative approaches to assessing and developing the skills Canadians need to thrive in the days and years ahead. The Future Skills Centre was founded by a consortium whose members are Toronto Metropolitan University, Blueprint ADE, and The Conference Board of Canada

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Project Objectives (and associated project partners):

1. To identify employers who cannot fill their need for employees with specific skill sets (especially those with new technology related gaps). (Seven Colleges across the country, including BVC)
2. To develop competency-based job profiles and the related competency profiles of 14 job roles identified by the colleges. (WFSI)
3. To develop the 14 competency-based assessments for the job roles using an AI informed technology platform. (Ametros)
4. To curate the associated learning required to build the competencies of the job roles. (Colleges)
5. To administer 2500 competency-based assessments to job seekers, 67% of whom were from populations under-represented in the workforce and then provide the curated learning that would allow the job seekers to fill any competency gaps. Then to reassess if necessary. (Ametros, colleges)
6. To award micro credentials to successful assessment takers (75% were expected to be successful). (Colleges)
7. To document the improved job prospects and job performance of the micro credential holders. (Colleges)
8. To build a Flexible Learning Platform through which all of the objectives could be managed. (IBM)

The original two-year timeframe of the project has ended and BVC has requested this report for the funder.

The project has had few successes to date, but this is not because of a lack of effort. Rather, as is shown below, it is because the methodology included some components and tools which have not met the needs of the project. However, this is a research project and as such all the data so far are useful data. The Future Skills Centre and Bow Valley College are advised to learn from the results of this project so far, and make the changes needed to ensure success in future.

Learnings

The following is a report on the learnings from the project to date, with reference to the project objectives.

Objective 1: To identify employers who cannot fill their need for employees with specific skill sets (especially those with new technology related gaps). (Seven Colleges across the country, including BVC)

The seven original partner colleges were: New Brunswick Community College, Vanier College, Georgian College, Red River College, Bow Valley College, NorQuest College and Langara College.

During the proposal process, to fit the project within the allowable funding request, the budgeted amount for each college was reduced from their individual initial asks. The amount budgeted for each college became too small to ensure that they could have a staff person dedicated solely to the project.

Early in the project, individual and group meetings introduced the project to the people who had been named as project leads at each college. They were not, as a rule, the people who had signed on as partners to the project, but more likely to be heads of a department with multiple tasks beyond the work of this project.

It quickly became apparent that most of the project leads from the colleges were not in regular contact with employers other than those with whom they were already engaged through current program offerings. Nor did their job descriptions allow them to research the local economy or to spend time in their communities building relationships with new employers. This pushed them towards thinking about how they could offer micro credentials for employers with whom they were already engaged about current program offerings.

As a result, none of the suggestions for micro credentials would ease the pain of employers who experienced a shortage of people who could fill vacant roles, including those that had been impacted by recent technology advances.

When colleges did identify an employer that was willing to engage in the development of a micro credential, further discussions usually led to the realization that the constraints of the project invariably did not allow their needs to be met.

It began to feel like the project was providing a solution for which no one had a suitable problem.

Objective 1 - Identified Learnings

- Micro credentials for upskilling and reskilling new or existing employees must be developed in discussion with employers – but too few college staff have access to employers. Colleges staff need to engage with employers in their community beyond those with whom they work with already to explore their learning needs.
- Project methods as described in a proposal do not necessarily work on the ground when a project is live. The methodology of a micro credential project must be flexible enough to meet the realities of the needs of employers (for more on this see Objective 3).

Objective 2: To develop competency-based job profiles for 14 job roles identified by the colleges. (WFSI)

The first college-employer relationship that was identified for the project was that of New Brunswick Community College and New Brunswick Power. NB Power had identified that they needed Power Line Technicians and Power System Operators. However, in the summer of 2020,

COVID restrictions made it too difficult for WFSI to develop the job competency profiles on site with company personnel. As well, the schedules of the staff who knew the job roles best also did not mesh well with those of the partners, so what should have taken mere days took eight months to accomplish.

Later discussions showed that the needs of this employer did not fit well with the methods of the project and efforts to make them fit ended with a product that only partially met their true needs. The company already had a customized assessment tool that they used in their hiring, and most of their employees were apprentices in existing college-based apprenticeship programs. The remaining training needs were predominantly either very technical or customer service issues associated with major power outages, which required mentorship training by supervisory staff, which did not fit the project model well.

While competency-based job profiles were built for the two job roles, they were devised more for assessment and training solutions to meet the needs of the project rather than to meet the needs of the employer.

Subsequent conversations with employers from the Child Care sector in Montreal and the Tech sector in Vancouver also proved that the project model was not a good fit for the identified needs of the employers. The competencies needed included conflict resolution and oral communication, neither of which could be adequately assessed (see objective 3 below). Despite the efforts of the project leads at the colleges and the project manager and coordinator at BVC, no true fit was found. This echoes the learnings from Objective 1: the colleges were talking for the most part to employers they already knew, and they were trying to create a micro credential solution where it was not needed, with an assessment technology that could not assess competencies adequately.

Objective 2 - Identified Learnings

- Micro credentials are best suited to situations where employers have a pressing need for employees with specific competencies.
- Competency assessment needs to be appropriate to the competencies being assessed; while this point seems redundant, the chosen assessment tool was not appropriate for many of the competencies that were considered for this project, which in turn reduced the number of job roles suitable for consideration. Improper assessment negates the result.

Objective 3: To develop the 14 competency-based assessments for the job roles using an AI informed technology platform. (Ametros)

Ametros is a technology company that provides AI-powered learning of soft-skills through interactive, simulated workplace scenarios. It is used successfully in multiple situations, including for example, in ethics training for building inspectors. Ametros partnered with BVC to provide the assessments – one of the innovations of the project.

The BVC team planned to build comprehensive competency profiles – the competencies required to do the jobs well – from the competency-based job profiles developed by WFSI and the employers. These would then be passed to Ametros which would develop the AI supported, competency-based on-line assessments which every job seeking individual would take as their entry-point into the project. Assessment results would identify any competency gaps which would then be filled by the individual through the learning curated by the colleges (see Objective 4). Assessment would be repeated, until all the competencies had been successfully assessed.

However, the assessments proved to be much harder for Ametros to build than expected. Multiple technical issues arose, and Ametros is best placed to discuss these.

Amongst the issues:

- There was limited capacity to assess any of the technical skills employers identified as being important to the job roles.
- The capacity to build in assessment for competency in any licensed or proprietary software proved to be too expensive and time consuming for Ametros.
- These two factors eliminated many job roles from the project.
- The assessments were to be administered on-line using natural language processing. Individual job seekers would take the assessments using a keyboard to answer the assessment questions. Many of the intended beneficiaries of this project are not fluent in English, and many may not have the keyboarding skills to enter the words expected by the assessment tool.
- Furthermore, many competencies are not appropriately assessed through written answers.
- One assessment, created to assess customer service skills gave failing scores to multiple senior members of the project team without providing clear reasons for the failure.
- The assessment tools were expected to be developed within a few weeks of receipt of the competency profiles, but the few that were developed took much longer.

Objective 3 - Identified Learnings

- Assessment must be appropriate to the competency being assessed. In this project, refusal to use different, more appropriate and flexible assessment tools forced the colleges to look for employers and job roles that met the specifications and restrictions of the tool. In effect, for this project, the tail wagged the dog.

Objective 4: To curate the associated learning required to build the competencies of the job roles. (Colleges)

College partners had agreed to curate learning content from reputable sources and build individual learning modules designed to build the competencies for each of their job-related micro credentials. Individual learners would only access the modules they needed to fill any competency gaps. This is a radically different approach from the more traditional building of courses and programs designed to teach all of the required material.

To date, only two of the colleges have been required to do this. As this process is not well understood or in common use, it remains to be seen how well it would be done.

That said, Bow Valley College has adopted a competency-based modular approach to its course design. BVC has prepared a course to cover material for customer service.

CWF is not aware of any employees of NB Power having been through the cycle of assessment and learning.

Objective 5: To administer 2500 competency-based assessments to job seekers, (Ametros, colleges)

CWF is not aware of any project assessments being administered. However, only the assessments for the jobs at New Brunswick Power have been created to standards of a specific industry employer. The Customer Service assessment has not been paired to an employer who would be willing to interview or hire holders of this micro credential.

Objective 5: Learnings

The offering of micro credentials that do not have a market with employers does neither the reputation of the college nor the prospects of jobseekers any good

Objective 6: To award micro credentials to successful assessment takers (75% were expected to be successful). (Colleges)

None so far.

Objective 7: To document the improved job prospects and job performance of the micro credential holders. (Colleges)

None so far.

Objective 8: To build a Flexible Learning Platform through which all of the objectives could be managed. (IBM)

IBM was engaged during the proposal phase, as the chosen project partner to build the flexible learning platform. Well known for its business solutions IBM seemed to be a natural choice for this critical tool.

The platform proved to be costly to build and to date has not yet met the criteria of flexibility. Nor does it provide seamless transitions from initial investigation of possible assessments through to completion of the chosen micro credential for learners.

The project proposers fell into a common trap of choosing the technology and the technology provider prior to determining the technology needs. As a result, there was a disconnect between what the project leaders thought they were buying and what IBM thought they were delivering.

Learnings from Objective 8

- Understand the technology needs prior to choosing and contracting with a technology partner - this is reinforced by the experience with Ametros- see Objective 3 above.
- The best known and largest technology providers are not necessarily the best ones for the job.

Conclusion and Recommendations

This project had, and still has, huge capacity to be a game changer in workforce development. Employers look to credentials to reduce the risks in the hiring of new employees. The development of micro credentials assessed by an adequate and accurate tool would provide proof that a new hire can do the job they were hired to do and reduce the risk to an employer. This in turn will improve job prospects for the micro credential holder.

To date, the project has not met its potential: Colleges have not brought forward employers with a burning need for employees for whom a micro credential is enough proof they can do the job; assessments using the Ametros platform have not adequately assessed competence; learning has not been curated – it has been developed through courses; no learners have been assessed and credentialed; and the IBM platform lacks some of the required functions. However, all this is possible if BVC can recruit employers to the project, appropriate competency assessments can be developed, and the flexible learning platform is adjusted.

CFW recommends that BVC be encouraged to learn from and act on the issues identified in this report and the time required. The accompanying project extension request proposes to do all of these things.