FROM CONTENT TO PROFICIENCIES: INTRODUCING COMMUNITY-BASED RESEARCH IN SENIOR-LEVEL ECONOMICS COURSES

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ABSTRACT:
We provide pedagogical insights into the design and implementation of a writing-intensive seminar course that aims at providing advanced undergraduate students in economics with the opportunity to conduct community-based research in order to enhance their ability to both “think like economists” and “do like economists” while enabling them to contribute to a contemporary economic issue or policy debate that is relevant to the community. The course is unique in getting students involved with the community in order to engage them in the research and learning process and facilitate their growth and maturation as learners, independent thinkers, decision-makers, and economists as well as their transition from academic to professional life.

KEYWORDS: community-based research, experiential learning, capstone, undergraduate economics research

JEL CODE: A22, A12, I20

Economists have long recognized the importance of research in developing critical and independent thinking and facilitating the intellectual maturation of undergraduates. Research in undergraduate studies is at the core of the proficiency approach to instruction and learning advocated by Hansen (1986). It is also a central recommendation for enhancing the quality of the major proposed by Siegfried et al. (1991) who grade the effectiveness of the economics major offered by universities and colleges in the U.S. with, in the authors’ words, a “suboptimal” B-.1 According to McGoldrick (2008), students should be not only exposed to academic articles in professional journals as an example of the end-product of economic research to be encouraged to “think like economists” (Siegfried et al. 1991, 21) but also actively immersed into the process through which economic research is conducted to be encouraged to “do like economists” (Hansen 2001, 232) in order to develop their ability to think like ones. We provide pedagogical insights into the development and implementation of an upper-level, writing-intensive, research seminar course in economics, which is not intended to impart subject-specific content but rather to enhance students’ research, analytical, and communication skills.

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We are grateful to Diane Woody and Karlene Davis for their help in redesigning and implementing the Research Seminar in Economics course. We are also grateful to participants in the Teaching in Focus Conference 2016 for helpful comments and feedback.
We designed the course as a capstone-type course that embodies explicitly Hansen’s proficiencies in learning outcomes and assignments. The major point of departure between our course and a process-oriented research seminar (e.g., the course developed by McGoldrick 2008) is that we involve advanced economics students with the community in order to engage them in the research and learning process. Community-based research, an experiential education approach, is used to foster students’ collaboration with community partners on a project of mutual interest under the supervision of the instructor. While students taking the course are not required to have prior knowledge on the chosen topic, they are expected to have a solid theoretical and empirical background in economics. It is the knowledge and skills acquired throughout their undergraduate studies that we target to employ creatively by offering students challenging projects on topics they are unfamiliar with. Rather than trying to identify a small niche in existing knowledge that they can contribute to, students are expected to utilize their economics knowledge and skills in framing an issue that is of practical relevance to the community using economic theory. This process requires creativity and independent thinking but also a deep and solid understanding of economic theory as well as the ability to assess the underlying assumptions and limitations of the theory used to frame the issue.

The opportunity to participate in, and contribute to, a contemporary economic issue or policy debate served as a motivation to our students to give their best to their chosen projects. While we do not offer a formal analysis of the effectiveness of the course, we discuss some indicators suggesting that conducting community-based research facilitated our students’ growth and maturation as learners, independent thinkers, and economists as well as their transition from academic to professional life. Hopefully, by engaging with the community students gained understanding and appreciation of some contemporary issues and policy debates affecting communities both locally and globally (e.g., urban poverty and its “racialization,” corporate social responsibility, and charitable giving), which will prompt them to be more active and engaged members of the community in the long run.

We start by defining community-based research and its importance as a pedagogical approach in economics. We proceed to outline Hansen’s proficiencies and relate them to the theory of experiential education before discussing the design and implementation of the course. A section is dedicated to our reflections on how to establish a successful cooperation with an interdisciplinary group of community partners.

Our experience could be of interest to departments that already have a senior capstone course embedded in their program. More importantly, however, our experience can be of interest to instructors teaching upper-level research seminar courses or writing-intensive field courses. We provide an insight into how a community-based research course can be used to integrate our three mandates – research, teaching, and service.

COMMUNITY-BASED RESEARCH – AN EXPERIENTIAL EDUCATION APPROACH

Community-based research (CBR) is a collaborative endeavor between academia – professors and students – and a community partner to address and resolve an issue relevant to the community. The research project should not only advance the knowledge within the discipline but also address the needs of the community and contribute to its betterment. Indeed, the research question usually originates from a practical issue faced by the community that academics can help shape, analyze, and resolve. Community-based research blurs the stark
distinction between the researcher and the researched, which is typical of traditional academic research – the community partner is not an object of the research but participates actively and equitably in the research process and benefits directly from the final output (Strand et al. 2003, 9, offer an insightful comparison between traditional academic research and CBR).

Several different terms are used to define community-based research such as action research, participatory research, popular education, and participatory action research. These alternative terms emphasize the important and equitable role the community plays in the research process as well as the practical importance of the outcome of such research – it should lead to findings, policy recommendations, or conclusions that can be acted upon. But these different terms also reflect the long and diverse historical roots of CBR. According to Strand et al. (2003), what is known as community-based research today traces its origins to three major influences in the 20th century: 1) the popular education models of the early 20th century that aim at empowering marginalized individuals to effect social change through education; 2) the apolitical action research model of Lewin (1948) who advocates the use of democratic participation – as opposed to autocratic coercion – at the workplace for increasing worker productivity and work satisfaction; and 3) the participatory research model of the late 20th century that advocates for the active role of the researched community in the creation of knowledge for solving problems faced by the community and effecting socio-political changes; in the words of Hall (2005, 8), “[t]he connection between research, politics and action [established by participatory research] had been opened up, never to be closed again.”

Given its roots, it is not surprising that according to Strand et al. (2003) “the community consists of people … who are disadvantaged by existing social, political, or economic arrangements” (3) and the goal of CBR is to effect “social change and social action to achieve social justice” (15). For our purposes, we use the broader definition of a community as a group of people sharing a common characteristic and set for ourselves the more modest goal of addressing any issue that has an economic aspect and the potential to impact positively societal wellbeing, be it directly or indirectly. This widens the pool of organizations that we can work with (Strand et al. 2003 appear to exclude for-profit organizations as possible partners) as well as the problems we can tackle – any problem that has an economic aspect and can be solved by applying the methods of positive economics. The partner, however, has the flexibility to use the research findings in any way that advances the community’s needs.

Community-based research has strong academic roots in Canada dating to the foundation of the Participatory Research Group in Toronto. With tight links to the International Council for Adult Education, the group was established in 1976. The growing recognition of the importance of engaging communities into academic research led to the emergence of a national network, Community Based Research Canada (CBRC), in 2008. York University is one of the more than 300 members of CBRC, which include universities, non- and for-profit organizations, networks, practitioners, and students.

Established in 1959 to meet the unprecedented demand for higher education in post-World War II Canada, York University has grown to become the third largest university in Canada with 53,000-strong student body of undergraduate and graduate students. Experiential Education (EE) is one of the three instructional priorities at York along with first year experience and e-learning. The term “experiential education” denotes a pedagogical approach and a range of strategies, one of them being community-based research, to relate theory to concrete experience, either within.
or outside the classroom, in order to deepen students’ understanding through reflection upon their learning.

Experiential learning as a formal educational approach traces its origins to the works of John Dewey, a leading educational theorist of the 20th century, who emphasizes the central role of experience in education. “[G]enuine education,” argues Dewey (1938, 25), “comes about through experience.” Kolb (1984) formalizes the modern theory of experiential learning as a “holistic integrated perspective on learning that combines experience, perception, cognition, and behavior” (21). While there are different models of experiential learning (Spencer and van Eynde, 1986, offer an excellent summary of Kolb’s experiential learning model), they typically encompass four different, recurrent, stages: 1) a concrete, educative, experience that engages the learner with the material being learnt such as a simulation, lab exercise, experiment, or internship; 2) reflection on that experience; 3) generalization, abstract conceptualization, or framing of the experience within existing theory; and 4) applying the theory to new experiences or situations.

By using inductive approaches to learning, experiential education aims at enabling learners to affirm and retain theories, concepts, and skills learnt in a course, thus increasing their ability to recognize circumstances and situations, in and beyond the classroom, that can be shaped, analyzed, and resolved by applying these knowledge and skills. EE views learning as a dynamic process – as opposed to a static process that can be defined in terms of content or outcomes – grounded in, but not limited by, prior knowledge and experiences and shaped by current and expected future experiences. Learning is also a two-directional process, both instructors and students are learners, which does not end in the classroom or with the completion of a degree.

Experiential learning is not a new practice in economics (Becker and Watts 1995). Studies indicate that experiential education methods are “intrinsically motivating, more involving, and almost always more enjoyable for participants than are most other forms of instruction” (Spencer and van Eynde 1986, 292). Dewey (1938) theorizes that the “agreeableness” of the experience is the foundation for its re-enactment in the future by the learner. Thus, learning that takes a more active form should have a longer-lasting impact (Hawtrey 2007; Siegfried et al. 1991), and therefore is better suited to prepare students for a life of on-going learning.

HANSEN’S PROFICIENCY APPROACH AND EXPERIENTIAL LEARNING

Hansen (2001) argues that the economics curriculum fairs poorly in preparing students to think like economists but even worse so in preparing students to “do like economists” (232). As such, Hansen argues that the undergraduate economics curriculum should explicitly aim at preparing students to demonstrate the acquired knowledge and skills effectively and in practical ways. Hansen (1986) advances five core proficiencies, which Hansen (2001) refines and appends, that students need to master during their studies and demonstrate upon completing their economics major. First, students should be able to access existing knowledge in economics in the form of academic and working papers, economic data, and policy analysis pertaining to an economic issue. Second, students should be able to display command of existing knowledge by being able to explain key concepts and summarize information pertaining to economics in the professional and popular press. Third, students should be able to interpret existing knowledge (e.g., recognize economic concepts and principles utilized in the professional and popular press and understand how these concepts aid in analyzing the topic). Fourth, students should be able to manipulate and
interpret economic data and perform regression analysis to quantify economic relations. Fifth, students should be able to apply existing knowledge to the analysis of economic issues and be able to present clearly their ideas in writing. Sixth, students should be able to create new knowledge by working on a research project and identifying research questions that contribute to the existing knowledge.

These six core proficiencies require differential levels of cognitive effort with the effort increasing from the first to the sixth proficiency. The proficiencies are not mutually exclusive; indeed, higher-order proficiencies are typically based on lower-level ones (e.g., one needs to be able to access existing knowledge in order to write a précis or display command of existing knowledge).

Hansen (2001) surveys the best students majoring in economics in two leading research universities and asks them to self-assess their mastery of these six proficiencies. Students consider weakest their ability to demonstrate the proficiencies requiring higher cognitive effort - apply and create.

With the democratization of higher education, more and more students enter into university with the goal of acquiring the knowledge and skills that will give them a competitive edge in the work place. This is not to say that the traditional liberal arts education values of personal growth, enlightenment, and intellectual enrichment have lost their appeal to modern-day students and employers. To the contrary, according to the 2015 Hart Research report commissioned by the Association of American Colleges and Universities (AAC&U), it is the broad knowledge and skills that cut across majors and disciplines – which are at the core of liberal education – rather than deep, specialized knowledge that the majority of surveyed U.S. employers value the most. Yet, while employers believe that all students should have the necessary knowledge and skills needed to complete a significant applied project before graduation, only 14 percent believe that most of today’s students are prepared to do so.

Hansen (1986, 2001) emphasizes that we cannot equip students with the ability to apply knowledge and skills in practical ways unless we provide them with opportunities to “do like economists” throughout the undergraduate economics curriculum and shift our focus from content to proficiencies. Hansen’s proficiency approach echoes the concern of Freire (1993) who argues that critical thinking skills cannot be developed by the “banking concept of education,” which views knowledge as a static pool of information, facts, ideas, and skills that the teacher has to transmit to the learner, thus turning learners “into ‘containers,’ into ‘receptacles’ to be ‘filled’ by the teacher” (53). In economics, Becker and Watts (1995) give a colorful definition to this pedagogical approach: “chalk and talk.” Using survey data, Becker and Watts conclude that the amount of time a typical instructor spends lecturing in an economics course (excluding upper-level courses) is, on average, 83 percent and advocate for the adoption of a wider range of teaching, hands-on, techniques to improve the effectiveness of instruction. And while no one argues that we should dispose of lecturing altogether – lecture is cost-effective and indispensable in achieving breadth of education while active learning techniques are costly (Siegfried et al. 1991; Goffe and Kauper 2014) – there seems to be an ongoing shift in the discipline from the emphasis on content to the emphasis on competencies. Building these proficiencies requires fresh pedagogical approaches to teaching and learning. While they should be developed throughout the curriculum, a senior-level writing-intensive course is a natural medium for the enhancement of the last two proficiencies, apply and create, in particular.
CONTEXT AND COURSE LEARNING GOALS

The Research Seminar in Economics course is a one-term, writing-intensive, upper-level elective course offered by the Department of Economics at York University. To address the needs of our nearly more than 2,500-strong undergraduate student body, the Department offers programs in Economics, Business Economics, and Financial and Business Economics. Although a capstone course is not explicitly introduced as a major requirement, students must take at least two writing-intensive courses that, together with the broad range of upper-level electives, offer senior-type experience to our students.

The Research Seminar in Economics is a process-oriented research course, which is not designed to impart subject-specific content but rather to enhance students’ research, analytical, and communication skills. The calendar course description is purposefully designed to be general in order to provide the instructor with the flexibility to choose the content and organization of the course. This flexibility coupled with the small class size (enrollment is capped at 25) provide the instructor with the unique opportunity to mold the course to fit her/his research and teaching interests as well as instructional pedagogy.

The authors redesigned the course to incorporate community-based research with the support of a curriculum innovation grant from the Academic Innovation Fund at York University. The redesigned course was taught for the first time by Karagyoza with Ferrara serving as a community partner in the Fall 2015 term and will be offered again in the Fall 2016 term.

We designed the course as a capstone-type course that embodies explicitly Hansen’s proficiencies in learning outcomes and assignments while providing advanced undergraduate students majoring in economics with the opportunity to conduct community-based research in order to: 1) gain the research skills and interpersonal qualities necessary to operate in a professional working environment, thus facilitating their transition from academic to professional life; 2) participate in, and contribute to, a contemporary economic issue or policy debate. The course builds upon theoretical knowledge and quantitative and analytical skills developed in the prerequisite courses to guide students in producing an original research paper on topics of interest to them and to community partners under the supervision of the course director.

As the course is intended to offer depth rather than breadth to students by guiding them through the research process without having to impart new economics content, course outcomes are defined as learning rather than content objectives and each learning objective is explicitly mapped to one or more of the six Hansen’s proficiencies (see Table 1). However, this mapping is not unique; it could depend on the specifics of the project chosen by the student.

By the end of the course, students are expected to produce a tangible evidence of their ability to do economics. Students applying to graduate school can use the research paper produced in the course to showcase their ability to conduct independent research. Alternatively, students can use the project to differentiate themselves in the job market upon graduation while their experience working with peers and community partners can signal potential employers the ability to work effectively in a team environment.
COMMUNITY PARTNERS

Establishing partnerships with the community for an upper-level economics course could be a challenging and time-consuming task, particularly in an environment without institutional support. Each project has to respond to the partner’s priorities but, at the same time, has to be able to utilize and challenge the theoretical, analytical, and technical skills of advanced economics undergraduates.

There are two broad areas of application for economic thinking: business and policy. Correspondingly, there are two types of community partners that could be considered. Within the policy realm, potential community partners are government bodies at various levels (e.g., economic unit/department of municipal governments, ministry of health, ministry of energy, ministry of finance, and ministry of environment). Within the business realm, we have headquarters of various banks, consulting firms, and business economics associations which we could be turning to for assistance in locating less visible partners and connecting with their members.

In light of the fact that experiential educational is one of the instructional priorities at York, the university has already established capabilities and many successful campus-community partnerships that we could step upon and build on. Our search for community partners was greatly facilitated by the Experiential Education Program coordinator at the Faculty of Liberal Arts and Professional Studies (LA&PS), the home of the Department of Economics. With the coordinator’s support, we prepared a promotional flyer for potential partners to provide information about the course and how partners could become involved and benefit from interaction with our students (Appendix A). Our EE coordinator then distributed the flyer among potential partners in the existing LA&PS EE database. We then followed up with telephone conversations and, where desirable, met with potential partners prior to the beginning of the term to discuss their needs and how our students could contribute to their organization’s goals. We worked with each community partner to identify a project, which was of interest to the partner and had the potential to provide meaningful educational experience to our students.

Strand et al. (2003) argue that strong partnerships are “those in which partners … share a common worldview, goals, and trust and mutual respect” (42). While partners with an economics background are the natural choice, we chose to work with an interdisciplinary group of partners to enable students to benefit from different perspectives as well as to contribute their own, economics, perspective to an issue. This co-operation also served to develop students’ ability to cut across disciplinary bounds in communicating their ideas, analysis, and findings in both oral and written form.

The instructor made every effort to ensure that each partner’s experience working with us was productive and positive. At the beginning of the term, the instructor communicated to partners via e-mail important aspects of the relationship and kept partners informed on a regular basis about any developments and important dates. As part of the course grade, students were expected to update the partner via e-mail on the progress of their work at least once every two weeks and incorporate feedback from the partner into their work. To minimize the workload of the partners, they were not directly involved in the grading of students. However, term projects were assessed based on both academic standards and the extent to which they met the needs of the community partner.
RESEARCH PROJECTS

In designing the projects, a special effort was made “to strike the [difficult] balance between intellectual rigour and respect for experience” (Thompson 1968, 23). To be included in our portfolio, a project had to respond to the community partner’s needs while intersecting with the analytical and data-driven nature of the course.

Although community-based research does not limit the choice of partners to those in the geographic proximity to the researcher, we looked for community partners in our immediate vicinity. York is located in one of the most impoverished neighbourhoods of the city, designated as one of the 31 “neighbourhood improvement areas” (NIAs) by the City of Toronto in its Poverty Reduction Strategy. Most of our students do not live in the neighbourhood and have limited interaction with the local community. Thus, we turned to the City of Toronto and the York University - TD Community Engagement Centre, which works with and within the local community, to identify projects with the potential to benefit our neighbourhood while providing students with the opportunity to enhance their understanding of, and leave their small impact on, the local community.

For one of the projects in our portfolio, we partnered with the City’s Community Development Unit to examine the determinants of urban poverty by surveying the relevant economic literature and then using data on the 140 neighbourhoods in Toronto to compare poverty rates and key neighbourhood characteristics in order to shed light on the links between race and poverty in the city (see Appendix B for a detailed project description). A related project required students to disaggregate available data from the 2001 and 2006 Canadian Census and National Household Survey to pinpoint “pockets of poverty” within two NIAs in the immediate vicinity of the university. The outcome of the project had the potential to inform policy makers, non-governmental organizations, and practitioners on where the antipoverty effort should be concentrated within a designated NIA.

The projects above highlight one approach that policy makers use to improve the economic wellbeing of a community – the direct poverty-reduction effort. Another project illustrates the indirect approach of tackling poverty reduction by improving the business environment and attracting new businesses to a geographic area, thus creating new and meaningful job opportunities for the local residents. For the Determinants of Location Choice project, our students teamed with the Economic Development and Culture Division of the City of Toronto and the Duke Heights Business Improvement Area (BIA). Their goal was twofold. First, students had to survey the relevant economic literature and identify the major determinants of firms’ location choice. Second, they had to utilize the insights gained from the literature survey to create an Employment District Profile template to be used for the 22 Employment Districts (EDs) in the City of Toronto. The ED Profile is a marketing tool used by economic developers at the City of Toronto to promote opportunities for business growth in the district. Further, students had to use that template to update the profile for the employment district where the Duke Heights BIA is located.

In total, there were nine projects in our portfolio on a wide array of topics ranging from economic development to behavioral economics and charitable giving with seven different community partners. Because this is a one-term course, we chose to meet with potential community partners prior to the beginning of the term in order to have the project portfolio ready at the beginning of the course. For each project in the portfolio, we included background
information on the community partner, context, research question, brief outline of what the student was expected to do, and the potential impact of the student’s findings. With the consent of the community partner, the project description was designed to be broad enough to allow students the flexibility to narrow down the research question based on their own interests, goals, and strengths (Appendix B provides a sample of the projects included in our portfolio).

Allowing students to formulate themselves the research question in conjunction with the community partner can add educational value to the learning experience in a CBR course. Meeting with community partners, who do not necessarily have economics background, to discuss issues and problems faced by the organization in order to identify and frame these issues using economic theory, articulate clear research questions, and outline research goals is of itself an intellectually challenging task. However, this process requires time and coordination. The one-term nature of our course necessitates that the instructor provide structure and guidance to students in order to ensure the quality and timely completion of the term projects.

Failure to take into consideration the needs and capacities of learners can result in an experience with limited or no educational value. As Dewey (1938, 46) notes, “[t]here is no subject that is in and of itself, or without regard to the stage of growth attained by the learner, such that inherent educational value can be attributed to it.” Thus, in addition to addressing the heterogeneity in background and interests of our students by offering a wide range of topics, the project portfolio was also intended to address the heterogeneity in skills and career goals, which is typical even among last-year undergraduates.

The undergraduate economics major caters, in the words of Colander and McGarvick (2009), to “two constituencies” (614). On the one hand, we cater to students who have an interest in the discipline but do not intend to pursue graduate studies in the field. On the other, we cater to the small minority of majors who intend to pursue graduate studies in the field (about 1.5 percent of U.S. undergraduate economics majors according to Allgood et al. 2015). For those interested in pursuing a graduate degree in economics, Ferrara, one of the authors, offered a project on charitable giving intended to give a glimpse into the research process through the perspective of a seasoned researcher. Further, by specifying broadly the methodology needed to be employed for the project (e.g., literature review, econometric analysis, comparative analysis) as well as the final output (research paper, policy brief, technical report), the project description allowed students to self-select into projects that required rigorous econometric analysis vs. those requiring less quantitative skills.

The project portfolio was distributed among students and discussed on the first day of classes. Students had two weeks to reflect on the projects in light of their own interests and strengths and rank the top four based on their preferences. Projects were assigned by taking into account student preferences, and nearly everyone in the class got to work on their most preferred project. To develop collaborative skills and stimulate healthy competition among students, thus ensuring the quality of the final product submitted to the community partner, at least two students were assigned to work on each project. Group work was highly encouraged, particularly among students working with the same partner. However, all assignments that students turned in, including the final paper, were individual.
Not having to impart new economics content to students offers flexibility to the instructor but can also present a challenge in offering a well-structured, organized, and cohesive experience to students. The 12-week course was organized in three distinct modules. In the first module (6 weeks), the course was held in the classroom. It was a mixture of lectures and seminars tailored to the specific nature of the course as well as the research projects.

We started the term by discussing the projects in our portfolio. The instructor then introduced students to the steps in the research process, directed them to relevant scholarly work that can be used to frame the problem at hand, and built the appropriate analytical and technical tools necessary for the successful completion of the project. For students who chose to work on empirical projects, the instructor held an econometrics review session in the lab as well as follow-up sessions for interested students on panel data analysis and regression with limited dependent variable. One class period was dedicated to conducting a literature review. Knopf (2006) served as a framework for our in-class discussion. Another class period was dedicated to constructing logical arguments and writing effectively in economics. Basic rules for good writing were reviewed and reinforced through in-class examples. In preparation for the class, students were assigned to read Economical Writing, the economics classic on good writing (McCloskey 1999); they were also referred to the classical writing guides by Strunk and White (2000) and Zinsser (2006) and the writing services and resources provided by the university.

The first module of the course was also a collaborative interdisciplinary effort that involved the community partners, an economics librarian, and the EE Program coordinator at LA&PS. The instructor invited each community partner to visit the course and provide background and motivation for students to work on their particular project. We had our concerns on whether valuable class time should be dedicated on such visits. However, our experience shows that they are an integral component of such a course. These visits provided additional context to our students and a better understanding of how the specific project fits into the broader activities, goals, and mission of the organization. Our partners spoke with passion about their work and the social impact that students’ research findings could potentially have. Thus, these visits provided students with a tangible glimpse of how their research and learning could contribute to the discussion and resolution of local and global economic, social, and political issues and served as a motivation and inspiration to their work. Given that the research projects were agreed upon with the community partner without student involvement and that students worked independently on their assigned project most of the time, without the need of face-to-face interaction with the partner, these in-class visits differentiated the experience from that in a course where students would choose from a list of topics supplied by the instructor. Viewing the projects and their goals through the perspective of the community partners, most of whom were not economists, as well as through the perspective of the instructor provided students with an experience of how economic theory, concepts, and skills can be used to shape and resolve diverse practical problems faced by actual organizations. But these interactions also gave them ideas of how to be creative in refining and narrowing down the broad project goals and research questions outlined by the instructor.

Meetings with the community partners were planned only for the beginning and end of the course when students presented their work. However, our experience suggests that interim meetings could be particularly valuable for students. For a couple of the projects, we scheduled such meetings to ensure that students were going in a direction that aligned with the goals of the
partner. The instructor requested students to come to the meeting prepared to give a 3-5 minute talk on what they had accomplished thus far and participate actively in the discussion with the partner facilitated by the instructor. These interactions enhanced their ability to communicate their findings to a broad audience as well as their confidence interacting with professionals.

Many of our students complete their degree without clear career goals. Interacting with the diverse pool of our community partners coming from academia, government, and non-governmental organizations enabled students to explore possible career paths and gave them a glimpse into the interpersonal qualities and skills needed to be a successful professional.

Another in-class visitor during the first module was the EE program coordinator at LA&PS. She introduced students to the notion of experiential education, emphasized the important role they played as our “ambassadors” in the community, and shared tips on how to interact with the community partner and how to complete successfully the research project. In addition, students had a library session where a seasoned librarian introduced them to the concept of scientific research, the available library resources for economists, and the process of accessing and retrieving data and relevant works from the library website and the World Wide Web.

In the second module, students focused on conducting independent research for their project. Instead of meeting in the classroom, students met one-on-one with the instructor for half an hour every week. These meetings, which were part of the class participation grade, enabled students to discuss with the instructor any questions or problems they faced and served as an incentive for them to make a steady progress on their projects. To encourage collaboration, the instructor offered students working on the same project the option to meet with the instructor as a group. This option worked very well for some students who established a close working relationship outside of the classroom and collaborated on some aspects (e.g., data collection) while focusing their research on different aspects of the same problem. Others preferred to work individually, in many cases because of logistics difficulties. The most efficient way of scheduling such individual appointments appeared to be through enabling students to make and cancel appointments on-line.

Students enter the course with diverse subject knowledge and skills as well as diverse language and writing skills. Disproportionately many international students for whom English is not their native tongue choose economics as their major. But even native speakers may struggle with structure, composition, grammar, style, or the construction of strong evidence in support of their arguments. The instructor used these one-on-one meetings to identify areas where students needed guidance and worked with them on enhancing their writing, analytical, and technical skills. Writing (as well as research) as a non-linear and recursive process was emphasized to students on every occasion.

In informal conversations and end-of-term evaluations, students indicated that they found the second module of the course, which lasted for four weeks, of particular educational value. There are more efficient ways to address student questions and concerns but there is probably no better way to build trust and rapport with each individual student, thus enabling the instructor to provide individualized support and encourage each student to make the most from the course and the experience.

In the third module, we met in the classroom during the last two weeks for students to present their research to classmates, community partners, and faculty at the Department of Economics and LA&PS. As a small component of the grade, students were given the opportunity to assess
the presentations of their classmates to encourage them to reflect on their own presentations and to expose them to the process of providing meaningful peer review. After incorporating the received feedback on their presentation into their project, students submitted their final paper to both the instructor and their community partners.

All the elements that comprised the final grade complemented each other and were designed to walk students through the process of producing a polished research paper. Students received detailed guidelines on how to complete each assignment as well as grading rubrics used by the instructor for evaluation.

Similarly to course objectives, the assignments were explicitly linked to the Hansen’s six proficiencies. The number of proficiencies emphasized in an assignment ranges from three to all six (see Table 2). Clearly, the attained level of mastery varies across students.

[Citate Table 2 here]

Several interim assignments (e.g., project proposal, draft paper, and in-class presentation) were graded to provide timely feedback and guidance to students as well as to encourage them to put in regular effort on the course and complete their projects in time. The research process and final paper received an equal weight in the course grade.

COURSE OUTCOMES AND CHALLENGES

Judging the effectiveness of community-based research – and, for that matter, the effectiveness of any pedagogical practice (Allgood et al. 2015) – for helping students develop as economists is clearly a difficult task. The added elements of learning outcomes (as opposed to content outcomes) and the small, possibly non-representative, sample with no control group further complicate the issue. Test score comparisons between control and experimental groups are problematic even for the evaluation of subject matter content and fail to measure all the objectives of instruction (Siegfried and Fels 1979). However, there are several indicators that can be used to gauge the extent to which the course has achieved its objectives, such as attrition rate, class attendance (Cohn and Johnson 2006), end-of-term student evaluations of the course (Becker and Watts 1999), percentage of students pursuing a graduate degree in economics (Allgood et al. 2015), and undergraduate research paper presentations and publications (Li and Simonson 2016).

Class attendance was persistently high, the attrition rate was nil, and all students except for one submitted their final paper (and remaining assignments) in time even though students indicated that course work was time-consuming. For comparison, in one of the courses the instructor has taught at York, as many as 15 percent of students formally applied for a make-up final exam. Informal communications with students during and after the course and end-of-term course evaluations indicate the high student satisfaction with the course. In quantitative evaluations using a scale from 1 (poor) to 5 (excellent), the average score on every single aspect of the course was close to 5 and no student evaluated a single aspect of the course as poor or even adequate (2). Comments for improvement were constructive without negative connotation while students showed appreciation for the applied nature of the course, the opportunity to work with community partners on interesting projects, the flexibility in choosing a project, the individual nature of the projects while collaboration was encouraged, the opportunity to hone their research, communication and writing skills, and the close interaction with the instructor. Notwithstanding
that course evaluations may not necessarily be correlated with student intellectual growth in the course (Siegfried and Fels 1979), a positive educational experience is a precondition for undertaking similar future experiences (Dewey 1938). By developing appreciation and love for the field as well as the ability to apply basic economic theories and concepts, students will, hopefully, engage in further pursuits in economics, whether or not they become professional economists.

One of the students in the class had a change of heart and decided to apply to a graduate economics program after being admitted into a competitive law program. In her e-mail requesting a letter of recommendation she wrote: “[B]eing able to experience taking on a research project last semester through your course has really shown me how much I love to think about economic problems and solutions, and I'd like to try and pursue it further.” Nine of the nineteen students who took the course ended up pursuing graduate studies, most of them in economics, and this number could increase as some of the students who took the course have not completed their degree yet. However, this is an indication of self-selection rather than course impact – disproportionately many academically stronger students choose to challenge themselves by taking a demanding course.

There are several indicators for the quality of research and final output produced by students in the course. One of the students went on to have her course project selected for presentation at the Undergraduate Research Fair of LA&PS and a couple of students are working on submitting their revised paper to peer-reviewed undergraduate journals. The best projects are also in a competition for departmental and Faculty-level awards. The willingness of our community partners to continue their co-operation with us on the course, and even widen that co-operation to the departmental level, as well as their willingness to hire our students for internships and jobs indicate that our students managed to establish a bridge with the local community.

The course offered many “teachable moments” to the instructor. One of those was the transformation she witnessed with a student who, at the beginning of the term, voiced her concern about the non-traditional nature of the course. The student was particularly displeased by having to leave campus in order to meet with the community partner and having to participate actively in such a meeting. Yet, the student stuck to the course and, at the end of the term, expressed her gratitude to the instructor not only for the opportunity to engage in an interesting project but also for helping her open up and gain confidence in interacting with her classmates and community partners.

From the instructor’s perspective, teachable moments, as valuable as they are, may not outweigh the costs of introducing community-based research in the face of time constraints, multiple commitments, and research requirements. The extra commitment required from the instructor to utilize experiential education methods in the classroom has been well documented (Allgood et al. 2015; McGoldrick 2008; Spencer and van Eynde 1986). Adding community-based research to a process-oriented research seminar, an already time-demanding course (McGoldrick 2008), adds a further dimension to the time commitment of the instructor by requiring not only knowledge of areas of economics outside of the instructor’s expertise but also an intimate knowledge of the issues faced by the community if these issues are to be utilized as an educational resource (Dewey 1938).

Borrowing the idea of modeling education as a production function from Siegfried and Fels (1979), we can question whether the cost a community-based research course imposes on the
instructor can be minimized while achieving the same high impact. There are several ways an instructor can minimize his or her time commitment to the course, with the following list being far from exhaustive: 1) offer fewer, shorter, or group one-on-one meetings; 2) work with fewer community partners on a less limited and less heterogeneous portfolio of projects; 3) introduce group as opposed to individual projects; 4) identify projects which can be easily broken into several independent components; 5) identify projects where economies of scale can be had, e.g., projects that apply the same theoretical framework to different contexts (e.g., in our context, the group development of an ED template to be individually utilized for the creation of a profile for each of the 22 employment districts of Toronto); and 6) establish long-term partnerships that can ensure project continuity from one course to the next.

There is a plethora of possibilities that an instructor can choose from to make the course more time-efficient depending on personal preferences, student body, and institutional context. Perhaps the best way to make offering such a course sustainable is for the instructor to use it as a vehicle to enhance his or her research. Based on a survey of leading researchers in economics, Becker and Kennedy (2005) identify a number of channels, including supervising undergraduate students, through which teaching can enhance one’s academic research. We can take that a step further, or rather back, to the origins of many public and some private universities in the U.S. as land-grant colleges with deep roots in the needs of the local community. The original mission of the land-grant institutions was to provide practical education to working class members of the community in order to meet the needs of the rapidly industrializing nation. And while the needs of communities have changed and not all research could have practical applications, bridges could be built between academia and the community in a very broad sense. As academicians, we have three major mandates: research, teaching, and service. We can segregate these three mandates but a community-based research course offers a unique opportunity to integrate them all for the benefit of the instructor, students, and the broader community (Brooks and Schramm 2007). Instructors can identify community organizations, be it at home or abroad, which would be interested in the outcomes of their research and work with students to disseminate their work to non-specialists and tailor their results to the specific community needs. Alternatively, the instructor can use the course as a cost-efficient way of exploring possible new research avenues. Being able to make an impact, even in a small way, on the community could be intrinsically motivating and rewarding for the instructor just as it is for students.

CONCLUSION

Community-based research is identified as a high-impact educational practice by AAC&U. It involves students in the research and learning process organically in order to enrich their experience and facilitate their growth as learners and members of the community. It is, however, a resource-intensive practice. As such, it can be offered in the economics curriculum strategically when students can benefit from it the most, i.e. when students have accumulated a certain level of breadth and depth of discipline-specific knowledge and skills. Our experience supports the results of numerous previous studies – active learning techniques are appreciated and highly valued by students. Thus, courses integrating community-based research can be used by departments as a marketing tool to attract and retain top students.
NOTES

1 Colander and McGoldrick (1999), however, argue that a B- is “not necessarily a poor grade for economics in meeting liberal education goals” (612).
2 Although we would like to think that economic education prepares our students to make better decisions as consumers, employers, voters, and investors, according to Salemi et al. (2001) there is little hard evidence in support of this belief.
3 We adopt this definition for our purposes. However, Hall (2005) emphasizes that universities do not have a “monopoly over knowledge production” (22); community-based research could be conducted by members of the community alone.
4 An important influence is Freire (1970) who calls for a radically different approach to research, from a dispassionate act with a stark distinction between researcher and researched to a process of active engagement between the researched and the researcher for the benefit of the researched.
5 Dewey (1938) notes that not all experiences are educative and provides a nuanced discussion of what makes an experience educative.
6 Based on a national survey, for example, Myers et al. (2011) find that more than half of the programs agree with the first five Hansen’s proficiencies as the goals of the major.
7 For policy reasons, the City of Toronto is divided into 140 neighbourhoods.
8 The City of Toronto defines a Business Improvement Area (BIA) as “an association of commercial property owners and tenants within a defined area who work in partnership with the City to create thriving, competitive, and safe business areas that attract shoppers, diners, tourists, and new businesses.”
9 “Hard to define and easily missed,” teachable moments are “those joyful events in the rhythm of teaching and learning when previously hidden connections are established, however fleetingly, among participants and the subject matter” (Woodhouse 2011, 219).
REFERENCES


APPENDIX A
PROMOTIONAL FLYER

Experiential Education at York University

Putting theory to work through guided practical experiences in the classroom, community, and workplace.

LINKING THE CLASSROOM TO RESEARCH

As a community partner, you are invited to act as a genuine co-educator in our CBR course. This is an opportunity for you to work with York faculty members, students, and the Experiential Education Office to define a research project that responds to your organization’s current needs while also meeting the course’s learning outcomes.

Under the guidance of a season professor, students in the Department of Economics will utilize their knowledge and skills to address your organization’s research needs. In doing so, learning becomes practical and closely linked to the central objectives of your organization, providing tangible benefits to your organization and the students.

COURSE INFORMATION

The Department of Economics invites you to collaborate with fourth-year undergraduate students to design and implement a research project of interest to your organization that can provide a challenging, hands-on experience to our students. The Research Seminar in Economics course (ECON 4089) offers students the opportunity to experience first-hand how the core methods and tools of economic analysis are applied to understand and solve economic problems faced by business organizations and policymakers. The course builds upon theoretical knowledge and quantitative and analytical skills developed in the prerequisite courses to guide students in producing an original research paper on a topic identified in collaboration with you under the supervision of the instructor.

HOW IT WORKS...

Should you wish to partner with us, we will work with you to identify a research project that responds to your priorities while intersecting with the analytical and data-driven nature of the Research Seminar in Economics course. Though working independently most of the time on the agreed-upon research project throughout the term, the student team will be in touch with you periodically, ensuring the project’s optimal alignment with your goals—while the Professor will instruct and coach students around research protocols and necessary confidentiality and privacy issues. At the end of the term, you will be presented with a final report and will be invited to attend a short, focused presentation, where you will have the opportunity to share constructive feedback with the students.
STUDENTS CAN PARTNER WITH YOU TO:

- Perform “action-based” research to inform and help your organization identify creative and strategic solutions to the issue at hand.
- Use the correct theoretical approach to frame the economic issue identified in conjunction with you.
- Conduct literature review; analyze and critically assess relevant work applicable to the research project.
- Identify the appropriate technical and analytical tools for addressing the problem at hand; formulate an appropriate empirical model and identify testable hypotheses.
- Apply the appropriate technical and analytical tools to conduct economic research.
- Articulate evidence-based conclusions and provide appropriate recommendations.
- Communicate research findings clearly and effectively both in oral and written formats.

PROGRAM FEATURES

- Students are guided by a seasoned Professor with extensive experience in the field of economics.
- You obtain a useful end product while students add realism – and excitement! – to their coursework through a hands-on collaborative project.
- Unique opportunity to work with a group of bright, energetic, enthusiastic, and highly motivated senior undergraduate students on a worthwhile and meaningful research project for your organization.

PARTNER REQUIREMENTS

- Opportunities for the student team you are working with and the Professor to touch base with you periodically.
- A willingness to provide students with the necessary information and data needed to successfully address the identified research question.
- A willingness to work with students on a critical issue or research question within the policy or business realm that is of interest to your organization, meshing with theoretical and key course parameters.

“With their contemporary theoretical knowledge, sophisticated analytical skills, enthusiasm, and desire to effect a positive change in their environment, our students can offer creative and innovative solutions to issues of interest to your organization.”

To learn more about our Experiential Education program or getting involved:

Karelene Davis
South Ross S900
(416) 736-2100 ext. 70878
eelaps@yorku.ca
www.yorku.ca/laps/ee
APPENDIX B
PROJECT DESCRIPTIONS (A SAMPLE)

**Project Title:** LANDSCAPE OF POVERTY IN TORONTO

**Partner:** York University – TD Community Engagement Centre (http://cec.info.yorku.ca/)

The York University-TD Community Engagement Centre supports the University’s commitment to build a more engaged university by facilitating mutually beneficial collaborations between York University and the Black Creek community.

**Project description:** The goal of development is “to end poverty.”² We tend to think that poverty is confined within the borders of developing nations torn by civil conflict, autocratic political regimes or economic instability. In fact, York is located in one of the most impoverished areas of Toronto, designated as one of the 31 “neighbourhood improvement areas”³ (NIAs) by the City of Toronto in its Poverty Reduction Strategy.

While economics is all about the average behavior, it is also well known that averages can obscure substantial heterogeneity in the population. Your goal is to disaggregate the available data from the 2001 and 2006 Census and the National Household Survey⁴ to pinpoint “pockets of poverty” (“census dissemination areas” in the Stats Canada taxonomy) within first, the Black Creek and Glenfield-Jane Heights neighbourhoods, and then, time-permitting, the city of Toronto.

You would like to give a “face to poverty” in these smaller neighbourhoods, i.e. you would like to create profiles for these smaller geographic areas similar to the neighbourhood profiles created by the City of Toronto for each one of the 140 neighbourhoods or wards in the city. How does the average person living in a “pocket of poverty” differ from the average person in the entire neighbourhood? In the City of Toronto? In what respects is the average person living in such a pocket disadvantaged compared to the average person living in the entire neighbourhood? In the City of Toronto? How does access to financial services and education in such a pocket compare to this access for the entire neighbourhood/city?

When we think of poverty, we tend to think of what those who are impoverished are lacking. You would like to think, however, of what they have in abundance. For that, you can collect data on the number of payday loan businesses as well as temporary employment agencies located in these smaller geographic areas and compare that to the number for the entire neighbourhood/city.

Finally, you will have two snapshots of these “pockets of poverty.” Compare them. Is poverty persistent (are the same areas impoverished in both 2001 and 2006)? Have the demographic characteristics of the people living there changed? Has the income disparity between the average person living in a pocket of poverty and the average person in Toronto widened over this (admittedly, short) time?

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³ For policy reasons, the City of Toronto is divided into 140 neighbourhoods.
Your analysis has the potential to inform policy makers, non-governmental organizations, and practitioners on where the antipoverty effort should be concentrated within a designated NIA.

**Methodology:** Comparative analysis

**Final product:** Technical report

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**Project Title:** DETERMINANTS OF URBAN POVERTY

**Partner:** City of Toronto

**Project description:** Recently, the concepts of “racialization” and “feminization” of poverty have entered into the public discourse in Canada. The term “racialized minority” is typically used to mean “persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour.” Galabuzi (2006), for example, appears to equalize the social exclusion of racialized groups in Canada with “economic apartheid.”

As economists, you should know that “correlation is not causation” and that drawing causal conclusions is a very difficult and arduous process in economics. Here is how Lavernier and White (1998) aptly illustrate the issue:

The literature that examines poverty relies, for the most part, on a comparison of descriptive statistics between regions or demographic groups. From a comparison of these descriptive statistics, researchers draw conclusions about which regions or which demographic groups tend to have a relatively high poverty rate. A serious weakness with this approach, though, is that it inherently suffers from a high degree of multi-collinearity. A researcher may find, for example, that families headed by a female (with no husband present) have relatively high poverty rates and conclude that being a member of a female-headed family therefore substantially increases one's likelihood of being in poverty. If, in fact, female heads of household tend to be less educated than male heads, and are less likely than male heads to have a manufacturing job, it could be that these characteristics, and not being a female head, per se, are what contributes to a higher poverty rate. A simple comparison of the descriptive statistics would not reveal this fact; it would simply indicate that female-headed families have a higher poverty rate. (48).

Your goal for this project is not to examine whether race per se causes poverty. Rather, your goal is to survey the economic literature on the determinants of poverty that uses data from Canada and other developed economies. In particular, you would like to identify the determinants of urban poverty, e.g. economic, demographic, and geographic characteristics that can account for variation in poverty rates across neighbourhoods in large metropolitan areas. You would also like to discuss the quantitative effect of these characteristics on poverty estimated in empirical studies. For example, do the geographic or economic characteristics of a metropolitan area have a larger

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impact on poverty rates?

You will also use data on the 140 neighbourhoods or wards in Toronto to compare poverty rates/neighbourhood equity scores and key neighbourhood characteristics across wards. For example, identify wards with similar proportion of visible minorities in the population. Do they have similar poverty rates/neighbourhood equity scores? In what respects (other than the demographic composition of the population) do these wards differ from each other? Similarly, do wards with similar poverty rates/neighbourhood equity scores have similar demographic composition? What demographic characteristics are most strongly correlated with poverty rates? While this analysis may not have causal implications, it can help you shed light on the links between race and poverty in Toronto.

**Methodology:** Literature review with comparative analysis based on the available data

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**Project Title: Determinants of Location Choice**

**Partner:** City of Toronto; Duke Heights BIA ([http://www.dukeheights.ca](http://www.dukeheights.ca))

The Employment District Profile Initiative provides the City of Toronto an opportunity to promote its 22 Employment Districts, the companies within them and Toronto as a whole. Identifying Toronto's advantages both locally and internationally to help secure new business opportunities for the City of Toronto.

One of the 81 BIAs in Toronto, the Duke Heights is part of the Dufferin Keele North Employment District. It is the location of about 2,500 diverse business enterprises and 30,000 employees.

**Project description:** A Business Improvement Area (BIA) is “an association of commercial property owners and tenants within a defined area who work in partnership with the City to create thriving, competitive, and safe business areas that attract shoppers, diners, tourists, and new businesses.” Established in 2014, the Duke Heights BIA is one of the newest BIAs in Toronto, which is also a part of the City of Toronto Dufferin Keele North Employment District.

The interest of our community partner is in identifying strategies and producing promotional materials that can be used to attract long-term investment in the area. Your goal is two-fold. First, you will survey the economic literature on the location determinants of firms. What area-specific characteristics affect a firm’s location choice? Does the location choice depend on the firm’s line of business? What is the comparative advantage of the Duke Heights? What type of businesses should the BIA reach out to in promoting the area?

Based on your survey of the literature, you will also articulate a strategic plan to help the BIA achieve its objective of improving the area's profile by show-casing the existing businesses and attracting new ones. The plan could cover areas such as: (1) how to go about gathering info on existing businesses, (2) how to connect with these businesses in order to gather relevant information about them, and (3) the kinds of information one would want to collect about existing businesses.

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Second, you will work closely with Ms. Linda Fava at the City of Toronto to utilize the insights gained from the literature survey in updating the Employment District Profile for the Dufferin Keele North District created in 2010. This is a marketing tool distributed to potential investors, realtors who market sites in the area, and local businesses looking to expand their business. The Employment District Profile that you will create for the Dufferin Keele North District will provide companies with invaluable business resources including information on: local business area, transit, businesses and labor force, employment clusters, statistics and demographics for the area, local infrastructure projects, as well as, information on City of Toronto business services and business incentives.

**Methodology:** Literature review, strategic plan

**Final product:** Literature survey with clearly articulated strategic plan for the Duke Heights BIA and the updated Dufferin Keele North Employment District Profile

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**Project Title:** DETERMINANTS OF FOREIGN DIRECT INVESTMENT IN CAMBODIA, LAOS, AND VIETNAM

**Partner:** SoChange (http://sochange.ca)

“SoChange is a team of experts empowering and equipping both Canadian businesses and charities to maximize their impact for social good.”

SoChange empowers their clients to initiate dynamic organizational changes that make their clients “[e]ven more efficient; [e]ven more visionary; [e]ven more creative; and [e]ven more effective” while leaving a positive impact on the world.

**Project description:** Foreign Direct Investment (FDI) is seen as a vehicle for economic growth. Cambodia, Laos, and Vietnam are neighboring countries in Southeast Asia, which initiated the liberalization of their laws and regulations pertaining to FDI in the late 1980s. Your goal is to shed light on the key characteristics of international capital flows to these three countries.

You can start the project by examining the trends of FDI in these three countries compared to other developing economies across the globe. How do these three countries compare to other similar developing nations? How does Cambodia fair in terms of FDI inflows compared to its neighbors?

Your major focus would be on quantifying the determinants of FDI flows to Cambodia, Laos, and Vietnam. What specific host country characteristics attract FDI? Are some of these characteristics more important than others in attracting FDI? What is Cambodia’s comparative advantage in attracting FDI relative to its neighbors? What is its comparative disadvantage?

To answer these questions, you are going to use the gravity model. In international economics, the gravity model has been extensively utilized to describe and predict bilateral trade flows based on economic size, distance, and overall connectedness. More recently, it has been successfully used in explaining financial flows between countries as well. Based on your results, you will prepare policy recommendations for the Government of Cambodia on the areas of improvement to prioritize in order to attract FDI.

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9 The recipient of FDI
**Methodology:** Econometric analysis

**Final product:** Research paper with policy recommendations.
<table>
<thead>
<tr>
<th>#</th>
<th>Proficiency</th>
<th>Access existing knowledge</th>
<th>Display command of existing knowledge</th>
<th>Interpret theoretical knowledge</th>
<th>Interpret quantitative knowledge</th>
<th>Apply existing knowledge</th>
<th>Create new knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Articulate research questions, which both address community partners’ needs and reflect contemporary economic thought on the subject.</td>
<td>X</td>
<td>X</td>
<td>XX</td>
<td>X</td>
<td>X</td>
<td>XX</td>
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<tr>
<td>2.</td>
<td>Use the correct theoretical approach to frame the economic issue identified in conjunction with community partners.</td>
<td>X</td>
<td>X</td>
<td>XX</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>3.</td>
<td>Write literature review by critically assessing, comparing, and contrasting scholarly work relevant to the project at hand.</td>
<td>X</td>
<td>X</td>
<td>XX</td>
<td>XX</td>
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<tr>
<td>4.</td>
<td>Collect the data needed for your research.</td>
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<tr>
<td>5.</td>
<td>Identify and master the appropriate technical and analytical tools for addressing the problem at hand. In the case of an econometric project, you should be able to formulate an empirical model and testable hypotheses.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>XX</td>
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<tr>
<td>6.</td>
<td>Apply the appropriate technical and analytical tools to conduct basic economic research.</td>
<td></td>
<td></td>
<td>X</td>
<td>XX</td>
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<tr>
<td>7.</td>
<td>Articulate evidence-based conclusions/policy recommendations.</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>XX</td>
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<tr>
<td>8.</td>
<td>Identify the major limitations in the analysis carried out.</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>XX</td>
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</tbody>
</table>

*Note: Following Hansen (2001), we use X to indicate important and XX highly important. However, there is no exact mapping between proficiencies and learning outcomes as the proficiencies needed to achieve a given outcome could be project specific.*
## TABLE 2: Course Grading Components and Hansen’s Proficiencies

<table>
<thead>
<tr>
<th>#</th>
<th>Assignment</th>
<th>Midterm progress report</th>
<th>In-class research presentation</th>
<th>Communication with partner</th>
<th>Class part.</th>
<th>Term project</th>
<th>Press release</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Access existing knowledge</td>
<td>XX</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>XX</td>
</tr>
<tr>
<td>2.</td>
<td>Display command of existing knowledge</td>
<td>XX  XX</td>
<td>XX</td>
<td></td>
<td>X</td>
<td>X</td>
<td>XX</td>
</tr>
<tr>
<td>3.</td>
<td>Interpret theoretical knowledge</td>
<td>XX</td>
<td></td>
<td></td>
<td>X</td>
<td>XX</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Interpret quantitative knowledge</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>XX</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Apply existing knowledge</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>XX</td>
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<tr>
<td>6.</td>
<td>Create new knowledge</td>
<td>XX</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>XX</td>
</tr>
</tbody>
</table>

*Note: Following Hansen (2001), we use X to indicate important and XX highly important. However, there is no exact mapping between proficiencies and learning outcomes as the proficiencies needed to achieve a given outcome could be project specific.*