Teaching the Intelligence Collection Disciplines: The Effectiveness of Experiential Learning as a Pedagogical Technique

Keith Cozine, Ph.D.1

ABSTRACT

Teaching intelligence collection within an academic setting can be difficult because of the clandestine nature of tradecraft and sources of intelligence. One course titled “Intelligence Planning, Collection and Processing,” offered as part of the undergraduate Homeland Security program at St. John’s University, requires students to engage in intelligence collection projects. Specifically, students are required to use techniques taught in class to plan, conduct, and process intelligence from open sources, human sources, and geospatial sources. At the end of each semester, data were gathered by a survey asking the students their perception of the utility of these projects in helping them develop a better understanding of the course material. Specific focus was placed on how the students felt these projects met the learning objectives of the course. Data were collected from students enrolled in this course over the span of three semesters, culminating in the Spring 2017 semester. This article presents and analyzes the results of these surveys in terms of how the students perceived the effectiveness of these intelligence collection projects in helping them better understand the class material and meet the course objectives. It is the hope that the research presented will not only shed light on the effectiveness of these projects but will also help guide the further development of experiential learning pedagogical techniques to enhance learning in both this course and other intelligence courses delivered in an academic setting.

Keywords: experiential learning, intelligence education, intelligence collection, intelligence training, tradecraft.

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Enseñar la recopilación de inteligencia dentro de un contexto académico puede ser difícil por la naturaleza clandestina del oficio y recursos de la inteligencia. Un curso que se llama “Planeación, recolección y procesamiento de inteligencia” que se ofrece como parte del programa de pregrado de Homeland Security de la Universidad de St. John requiere que los estudiantes se involucren en proyectos de recopilación de inteligencia. Específicamente, los estudiantes tienen que usar técnicas que se enseñan en clase para planear, manejar y procesar inteligencia de fuentes abiertas, fuentes humanas y fuentes geoespaciales. Al final de cada semestre, los datos recopilados por una encuesta que le preguntó a los estudiantes cuál era su percepción de la utilidad de estos proyectos en ayudarles a desarrollar una mejor comprensión del curso. Se le dio un enfoque específico a cómo los estudiantes sintieron que estos proyectos llegaban a los objetivos de aprendizaje del curso. Se recopilaron datos de estudiantes inscritos en esta clase a lo largo de tres semestres, culminando en el semestre de primavera de 2017. Este artículo presenta y analiza los resultados de estas encuestas en términos de cómo los estudiantes percibieron la efectividad de esos proyectos de recopilación de inteligencia al ayudarles a entender mejor el material didáctico y cumplir los objetivos de la clase. Es la esperanza que la investigación presentada no solo pondrá en evidencia la efectividad de estos proyectos, sino que también ayudará a guiar el desarrollo futuro de las técnicas pedagógicas de aprendizaje experiencial para mejorar el aprendizaje tanto en este curso, como en otros cursos de inteligencia que se dan en un contexto académico.

Palabras clave: aprendizaje experiencial, educación de la inteligencia, recopilación de inteligencia, entrenamiento de inteligencia, oficio

Resumen

由于谍报技术本质和情报来源的隐蔽性，在学术背景下进行情报收集教学可能会比较困难。圣约翰大学（St. John’s University）本科的国土安全课程中包含一项名为“情报规划、收集和处理”（Intelligence Planning, Collection and Processing）的课程，该课程要求学生参与情报收集项目。具体而言，学生被要求使用课堂上学到的技术来规划、实施和处理来自公开来源（open sources）、人力来源(human sources)和地理空间来源
Teaching the Intelligence Collection Disciplines

Introduction

The goal of higher education should not simply be imparting knowledge, but also giving students the tools and skills they need to be successful in their future career. This means utilizing pedagogical techniques beyond lectures and readings to give students hands-on, practical experience that allows them to apply what they have learned using more traditional education techniques. This hands-on approach to education is easier to provide to students in some academic disciplines, such as those requiring technical skills or the physical sciences where lab work is considered part of the regular course curriculum. Even in teaching the fine arts, it is often more about practicing and doing rather than simply reading and listening. The same is not necessarily true in the social sciences. While skills such as critical thinking, accessing and analyzing information, and communicating orally and in writing can be honed by assigning research projects, they do not necessarily mirror the type of work students will be doing in their careers. This is especially true for students seeking careers in the security and intelligence fields where operational security, concealing tradecraft, and source protection are paramount. This challenge is heightened when dealing with students within higher education or other students without appropriate security clearances. Those intelligence activities most relevant to the issues of the day usually come to light only if there are intelligence failures. One example is the case of weapons of mass destruction in Iraq and the reliance on an Iraqi source known as “Curveball,” who fabricated information regarding mobile factories used to produce biological weapons. This is not to say there is no teaching value in investigating failure; however, focusing on successes allows a more balanced approach to examining the workings of
the United States Intelligence Community (IC). Compounding the problem, when intelligence successes do come to light, it is often years or even decades later; this can be extremely problematic when trying to teach intelligence to undergraduate students who, in many cases, were not even in primary school on September 11, 2001 (Cozine 2015a). One way to bridge these gaps between the classroom and the real world is through experiential learning.

While critical thinking, accessing and analyzing information, and communicating orally and in writing are important skills for intelligence analysts, this is only one category of a career path within the intelligence field. For example, the Central Intelligence Agency lists Collection Management Officer, Directorate of Operations Language Officer, Operations Officer, Paramilitary Operations Officer/Specialized Skills Officer, Staff Operations Officer, and Targeting Officer as occupations within its Directorate of Operations (CIA 2017). The challenge is to determine how experiential learning can be employed to provide a foundation for the skills and tools needed in these occupations as well as instilling a better understanding of the concepts, issues, and challenges faced. One possible solution is to design experiential learning assignments and projects that are specifically focused on various intelligence collection disciplines. This is not to suggest that individuals in careers focused on intelligence collection do not need the ability to think critically, access and analyze information, and communicate both orally and in writing, as they clearly do. Likewise, students seeking careers as intelligence analysts can benefit from having a greater understanding of the skills and tools needed for intelligence collection, processing, and exploitations, and the concepts, issues, and challenges faced in delivering raw intelligence for analysis.

The purpose of this paper is two-fold—first, to explain how experiential learning is employed in the course Intelligence Collection, Processing and Exploitation as part of the curriculum of the undergraduate Homeland Security program at St. John's University in Queens, NY. During this course, students are required to complete three intelligence collection projects focusing on Open Source (OSINT), Human (HUMINT), and Geospatial (GEOINT) collection disciplines. The OSINT project requires students to collect raw data from the Internet in fulfillment of a specific collection requirement and disseminate it in the form of raw intelligence. The HUMINT project requires students to acquire a potential human source of intelligence that may have access to a specific type of information to fulfill an intelligence requirement. Finally, The GEOINT project requires collecting images of a specific target and processing and exploiting these images, so they can be utilized as part of a larger finished intelligence product.

The second purpose of this paper is to determine whether students enrolled in this course felt that these intelligence collection projects enhanced learning and an understanding of the course material. This was accomplished through the use of a survey of students enrolled in the course over several semesters in which they
were asked about their experiences with the project. The data collected in this survey were analyzed to answer the research questions: (1) Did the students perceive the experiential learning technique of requiring intelligence collection projects as part of the course requirements to enhance their understanding and comprehension of the course material? (2) Did it allow them to apply this knowledge in a real world environment?

**Experiential Learning in Security and Intelligence Studies**

Experiential learning is “Learning in which the learner is directly in touch with the realities being studied. It is contrasted with the learner who only reads about, talks about, or writes about these realities but never comes in contact with them as part of the learning process,” (Kolb 2015, xviii). There are a variety of experiential learning programs offered at educational institutions such as internships, service learning, field projects, game play, and experiential learning projects that add a direct experience component to their traditional academic programs or course work (Kolb 2015). Some have argued that even utilizing television and film extend the learning beyond the textbook, such as helping students get a feel for an era or an event, interest building, presenting information in numerous ways to better help students understand topics, and providing teachable moments based on specific scenes or topics portrayed (Kelly 2017). Sprau (2001) believes that potential for instructional improvement in history using films within the framework of Kolb’s experiential learning model is perhaps the greatest when instructors are faced with a wide array of students from majors with different learning strengths. These same techniques of experiential learning activities are being incorporated into course work and curricula in many security and intelligence studies programs.

Jackson (2011) described how he used game-based experiential learning in his course *Science and Technology of Terrorism and Counterterrorism*, offered at Georgetown University. In the game, the class is divided into two sides and plays against each other. One side acts as terrorists planning a short terrorist campaign against a hypothetical urban subway system and the other side is charged with protecting the subway system from attacks. A modified version of this game was also utilized in the course *Modern Political Terrorism*, at Rutgers University in Newark, NJ and *Terrorism and Emergency Management*, at St. John’s University in Queens, NY. A study of students who participated in these experiential learning activities at Rutgers and St. John's found the activities deepened student engagement, increased the students’ understanding of concepts, models, and theories related to the course material, and increased motivation and overall satisfaction with the course (Cozine 2015a).

Experiential-based learning activities are also utilized in intelligence-specific courses in academic and professional training environments. Game-based learning
was incorporated into the initial training of the patrol officers responsible for protecting passengers, operations, and facilities at Aeroports de Montreal against all threats to civil aviation. The purpose of the activity was to demonstrate the importance and relevance of intelligence to their work and framed intelligence within an airport context (Palisson 2013). Wheaton (2011) explains how he incorporates this game-based approach to teach strategic intelligence analysis by utilizing online or downloadable games such as World of Warcraft. In addition to playing the games, students were required to come to some defensible conclusion about how the game related to the topic of that particular class. Experiential-based learning is used to teach intelligence collection as well, specifically the use of television and movies to teach about HUMINT collection. Cozine (2015b) describes how the television shows *Turn: Washington's Spies*, *The Assets*, and *The Americans*, and the movie, *Zero Dark Thirty*, can be utilized to teach a variety of covert sources of HUMINT including source acquisition, walk-ins, and agents working clandestinely in foreign countries, as well as overt methods such as interrogation of prisoners and detainees. It is not just game-play and film that have value as experiential learning techniques in teaching intelligence-related topics, but also experiential learning projects, specifically projects centered around intelligence collection.

**Experiential Learning Projects and Intelligence Collection**

Experiential learning projects are an important component of the course *Intelligence Collection, Processing and Exploitation* as part of the curriculum of the undergraduate Homeland Security program at St. John's University in Queens, NY. During the semester, students are required to complete three intelligence collection projects—one focusing on OSINT, a second focusing on HUMINT, and a third on GEOINT. The goals of these projects are: (1) to reinforce the course content presented in classroom lectures, the required text, and other course material; (2) to help the students achieve the overall course objectives; (3) to provide students with an understanding of the benefits and challenges of each collection discipline; and (4) to allow the students to utilize the knowledge and skills developed within the classroom to actually collect intelligence data and process it into raw intelligence within the context of specific intelligence requirements.

While each project was focused on a specific intelligence collection discipline, they also dealt with issues that crossed over multiple or all collection disciplines. For example, the TCPED process (tasking collection, processing, exploitation, and dissemination) is a process that each INT must go through, regardless of the source, in order to create raw intelligence that the analyst can use to create products to be used by policymakers (Lowenthal and Clark 2015). For this reason, the TCPED process is an important component of each project in addition to the discipline-specific content. In addition, many scholars agree that experiential learning does not teach anything by itself and some of the most important
learning takes place in the form of a debriefing during which the outcomes of the activities are put into context (Palisson 2013). For all three projects, this debriefing takes place in the form of a classroom discussion where the students reflect on their experiences with the project and how it related to the course material and learning outcomes.

OSINT

Given that OSINT is often referred as the source of first resort, it would seem appropriate that it is the starting point for an exploration into intelligence collection. Within the course content, there are some specific characteristics of OSINT that need to be emphasized. First, information does not have to be secret to be valuable. Second, because it is not secret, there are a variety of sources where OSINT data can be acquired. These include: traditional mass media (e.g., television, radio, newspapers, and magazines), specialized journals, conference proceedings and think tank studies, photos, maps, commercial imagery products, and the Internet. The variety of sources also presents certain challenges, primarily the daunting nature of the sheer volume of data available. Separating wheat from chaff requires skill, knowledge, and a reliance on sophisticated information technology (CIA 2013). Third, is defining what OSINT actually is: information that is publically available, acquired through legal means that is subsequently vetted and analyzed in order to fulfill an intelligence requirement (Jardines 2015).

The OSINT project assigned is designed to provide the students with a better understanding of these aspects of OSINT, but also some issues and concepts that cross all collection disciplines. In this particular project, those issues are related to the issue of differentiating between intelligence requirements and collection requirements, and the applications of the TCPED process. For this project, each student was provided an overall intelligence requirement and a collection requirement concerning the data that needed to be acquired and turned into raw intelligence to help a hypothetical analyst fulfill a collection requirement. The students were given very little specific guidance on how to achieve this, as the goal was for them to draw from the knowledge and skills learned in class and the required readings. The project instructions were intentionally vague and simply stated:

You have been provided an intelligence requirement and are tasked with a collection requirement or a request for information (RFI) for an analyst to fulfill the intelligence requirement provided by the consumer. Using any OSINT resources available, you must acquire (collect) raw data to help you fulfill your collection requirement. You will then process the raw data by putting it into a usable format. Next, you will exploit the raw data for validity, credibility, inherent biases, or any other information characteristics that may impact the
interpretation of the request for information. Finally, you will disseminate the raw intelligence by uploading it as a Word document on Blackboard.

The actual intelligence requirements and RFIs varied each semester depending on real-world events. For example, in the semester immediately following the November 2015 Paris attacks, one intelligence requirement given was: “In the wake of the attacks in Paris last year, what is the likelihood of a similar attack within the U.S. homeland?” The corresponding RFI was “a statement by ISIS regarding the United States potential targets and operatives within U.S. homeland.” It is important to note that in some cases, students were given the same intelligence requirement but different RFIs to help fulfill this requirement.

Given the vagueness of the instructions, the variety of intelligence requirements and collection requirements, the different levels of comprehension of the course material, and the creativity of the students themselves, it did not come as any surprise that there was great disparity in both the quality of the raw intelligence received and the way it was presented. The actual projects submitted ranged from simply cutting and pasting entire articles found on the Internet to full-scale finished intelligence products that attempted to answer the intelligence requirement rather than just fulfill the RFI. The disparity in quality of the project was desired as the hope was that these projects would provide the material for the most important component of the project—the debriefing. A classroom discussion about the projects was the main focus of the class immediately following the submission of the projects. During this class, students were asked about their experiences with the project and how specifically it relates to the course content on OSINT. Students were then provided examples of other students’ projects to constructively critique within the framework of the course content. The goal of this debriefing approach was to create an even deeper understanding of the issue, concepts benefits, and challenges of creating raw OSINT intelligence beyond the course material, lectures, and even the projects themselves.

**HUMINT**

Though HUMINT is often referred to as the source of last resort, it is the second collection discipline covered in the course. Since HUMINT involves any intelligence involving humans as a source, whether the information is provided in secret or not, both covert and overt human sources of intelligence are covered in detail in the course. However, some of the most important collection requirements for any intelligence service is to learn the plans and intentions of an adversary whether that target is a nation-state, commercial entity, terrorist group, or criminal organization. Achieving this often requires covert human collection by recruiting a well-placed human source who is willing to provide information on
that target. The key to accomplishing this is the intelligence officer and his or her relationship with an agent or spy willing and able to obtain the desired secret information needed to fulfill collection requirements. It is not the intelligence officer him/herself that obtains the secret information, but rather that agent that he or she recruits that has access to the desired information and is willing to provide it (Althoff 2015). It is this process that is the subject of the HUMINT collection project.

Just as the TCPED process is utilized to go from collection requirements to disseminating raw intelligence, it is the recruiting or acquisition process that allows intelligence officers to recruit an agent and is made up of six steps: spotting, assessment, development, pitch, handling, and terminations. “Spotting” is where a case officer attempts to identify individuals with potential access to information of intelligence value. The “assessment” phase is where the officer tries to gain insights into the potential recruitment target by obtaining biographic information to verify the individual’s identity and potentially assist in validating access to information of intelligence interest. If the initial assessment of the target appears positive, the officer will seek to move the target into the “development” phase in which ongoing contact is established to further build the relationship and gather more detailed assessment information. The aim is to develop a close, personal relationship that allows the potential recruitment target to more fully trust the officer. The “pitch” is the most critical phase in the recruitment process. It is during the pitch phase that the case officer “breaks cover” and reveals his or her true intelligence affiliation and asks the individual to work for them. If the recruitment target accepts a pitch, the operation moves into the “handling” phase. In this stage, the case officer formalizes the recruitment and “tradecraft” is introduced to ensure that the case officer and the agent can meet securely to avoid detection. The final phase is known as “termination” and, despite the sinister popular connotation, termination simply means that the secret “agreement” to provide protected information has been terminated (Althoff 2015). It is this acquisition or recruitment process that is subject of the HUMINT project of the course.

Students in the course will identify an individual on campus who is originally from a particular region of the world or has connections to that region. Each student is given a particular region such as sub-Saharan Africa, Southeast Asia, or Middle East, as opposed to specific countries, to allow for a greater pool of potential candidates from which to choose. Once they have identified a potential target, they will utilize elicitation and rapport-building techniques and the acquisition process to determine if their target or someone they know has access to information that may have intelligence value. To accomplish this, the students are provided the following scenario:

After years of budget cuts, the intelligence agency you have worked for has a serious shortage of human assets in (assigned regions). You have been
tasked with recruiting individuals domestically who may be able to assist you in developing assets overseas. To accomplish this, you will need to do the following:

- **Spotting**: Identify potential asset. This should be someone born in this region of the world or with other significant connection to that region.

- **Assessing**: Determine the individual has access to someone overseas that may have intelligence value.

- **Development**: Determine the nature of that relationship and whether it can be exploited for possible assistance in recruitment.

- **Pitch**: Would the asset be willing to contact his connection overseas to gauge interest in possible recruitment? (Hypothetically)

- **Handling**: How are you going to stay in contact with one other to discuss progress and other issues that may arise?

After you have completed this assignment, you must prepare an intelligence collection report as to the results of your search. Remember, source protection is of paramount concern.

Again, like the OSINT project, how the students actually accomplish this and the format of the intelligence collection report is intentionally left vague in order to allow them to draw upon the knowledge and skills they learned in class to complete the project. The only additional guidance that the students are provided is that they cannot target anyone in the class, or someone they have a pre-existing relationship with, and once a potential target is identified, for safety reasons, the student must advise the target that this is part of a class project. Also like the OSINT project, the class participates in a debriefing session where they can discuss the different approaches, issues, and challenges they faced in completing the assignment.

While it is acknowledged that this HUMINT project is not a truly realistic representation of the acquisition process, especially when recruiting the most valuable agents can require months if not years, it is believed that the project has value as an important teaching tool. First, though it is not a true realistic representation of acquisition processes, it does introduce the students to the concepts behind the process and demonstrate some of the pitfalls and challenges of the process even at this basic level. Perhaps more importantly, it requires the students to interact with someone from another cultural background and shows the need for strong interpersonal skills in order to establish and maintain a relationship of this nature. These skills such as good communication, rapport building, and maintaining trust are important skills in all HUMINT collection whether overt or covert.
One of the interesting things to come out of the debriefing was the students who participated in class on a regular basis were also the students who seemed to have the most success with the project regardless of the region of the world they were assigned. There are clearly impediments to creating a realistic HUMINT collection project focused on agent acquisitions, but these challenges pale in comparison to developing an intelligence collection project focused on the technical collection disciplines of MASINT, SIGINT, or GEOINT.

GEOINT

Unfortunately, students do not have the resources of the National Reconnaissance Office or other technical collection platforms to collect MASINT, SIGINT, or GEOINT at their disposal. One way to offset this issue, at least in terms of collecting GEOINT, is Google Earth. While technically images acquired through Google Earth would be considered OSINT as they are both publicly available and legally obtained, it remains a valuable tool in an experiential learning project to allow students to gain a better understanding of the various important issues and concepts from the course material related to GEOINT. These include: defining GEOINT as a combination of images, imagery intelligence, and geospatial information; the differences between absolute location and relative location; and the need to balance resolution, meaning how good the quality of an image is, and the need to see an extra bit of detail that is not there with synoptic coverage, meaning simultaneous coverage of a very large area of the earth to assure that important features are not left out (Murdock and Clark 2015). It also has value in demonstrating important concepts that impact all five collection disciplines, the need to incorporate use of all types of intelligence, or multiple-source intelligence (multi-INT), and the importance of the TCPED process in creating raw intelligence for analysis. The multi-INT approach is particularly important in GEOINT, because it is often other collection disciplines that provide the spatial data that is incorporated into the raw intelligence. The same is true of the TCPED process. A picture may be worth a thousand words, but only if the analyst knows what they are looking at. This means that the processing and exploitation of the images collected is crucial in creating raw GEOINT.

For the GEOINT project, the students are given the following scenario:

In recent weeks, ISIS released a video threatening to carry out similar attacks in the United States to those that took place in Paris in November 2015. The targets in the Paris attacks were dining and entertainment locations frequented by young middle class people. In response to this, the IC has been given the task of identifying potential targets in neighborhoods in various cities around the United States that share these characteristics.
To fulfill this intelligence requirement, the National Geospatial Intelligence Agency has been tasked with collecting satellite imagery of these neighborhoods and then processing and exploiting this data to identify potential targets, entry and exit routes, as well as assets that could be used in response to an attack. This could include police stations, firehouses, emergency services, hospitals, and any other assets that could be used in response to an attack.

Given that there already exists a significant database of satellite images of these locations in the DigitalGlobe library, the resources of the National Reconnaissance Office will not be needed. However, effectively processing and exploiting these images to create raw intelligence for analysis will require a Multi-INT approach. Important consideration should also be given to proper resolution and synoptic coverage when fulfilling this collection requirement.

Each student in the class is then tasked with a specific neighborhood within the United States in which they use Google Earth to collect images and then use OSINT to provide the spatial data and assist in the processing and exploitation of the images. Examples of collection targets provided to the students include Buckhead, Atlanta, GA; Coconut Grove, Miami, FL; and DuPont Circle, Washington, DC. Disney Springs was added to the list after it was learned that the Pulse Nightclub shooter, Omar Mateen, scouted that location as a possible target of his attack. As with the two previous intelligence projects, students were not given specific guidance on how to complete the assignment, again requiring them to draw on their course material. Also, this project has a debriefing element to point the exercise and individual assignment in the context of course material. The added benefit for this particular assignment was that the images that were collected, processed, and exploited by the students could be displayed to the course and students could brief the class on their particular target as well as discuss how their assignment incorporated the characteristics of GEOINT discussed in the course.

Evaluating Projects’ Effectiveness

The hope of this experiential learning pedagogical approach of employing intelligence collection projects as part of the course’s requirements was to enhance the students’ comprehension of the course material; apply the skills and tools needed for intelligence collection, processing, and exploitation in a real-world situation; and provide a greater understanding of the concepts, issues, and challenges faced in delivering raw intelligence for analysis. Were these projects in fact effective in achieving these goals? Answering this question is challenging. One approach could be to have one group of students engage in the intelligence...
collection project and have another group of students serve as a control group that does not complete these assignments but only is presented with the course material through lectures and required readings. All the students could then be given the same assessment tool to measure their knowledge of the course material and the performance of the two groups as a whole could then be compared. The problem with this approach is that if the projects were successful in achieving their goal, only one of the two groups would have benefited from them. An alternative method is to ask the students who participated in the course how they perceived the effectiveness of the intelligence projects in achieving their goals. This was the approach that was taken to try and evaluate the effectiveness of these projects.

**Methodology**

The goal of this evaluation is simply to answer the research questions:

1. Did the students perceive the experiential learning technique of requiring intelligence collection projects as part of the course requirements to enhance their understanding and comprehension of the course material? Did it allow them to apply this knowledge in a real-world environment?

To answer these questions, data were collected from students who completed the three intelligence collection projects as part of the requirements for the course *Intelligence Planning, Collection and Processing* at St. John’s University over a two-year period. Students enrolled in the course were asked to voluntarily complete a survey consisting of a combination of close-ended and open-ended questions related directly to their experiences with the intelligence collection projects. The questions focused on the students’ perception of the projects’ value as a teaching tool; specifically, did the projects enhance the students’ comprehension of the course material; allow them to apply the skills and tools needed for intelligence collection, processing, and exploitation in a real-world situation; and provide a greater understanding the concepts, issues, and challenges faced in delivering raw intelligence for analysis?

The majority of the questions on the survey were close-ended or scale-type varieties, including attitude, importance, and rating scales. The reasoning for using these types of questions is for better organization and analysis of the data. However, recognizing the value of open-ended questions, some questions provided the opportunity to qualify the answers by providing additional information the survey participants felt was missed in the structured questions, or provide any other information or comments they deemed necessary. Using this type of question structure allows for the organizational benefit of structured close-ended questions while preserving the free flow of information and ideas characteristic of open-ended questions.

The survey consisted of three sections, with each section asking the stu-
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dents about their experience and perceived effectiveness of the project on their understanding of the course material as it relates to OSINT, HUMINT, and GEOINT. The first set of questions in each section asked the students to rank the impact of the particular assignment on issues or concepts about that discipline from “Large impact,” “Somewhat of an impact,” “Little impact,” to “No impact.” Next, the students were asked to rate how helpful they found this project in terms of the course material as it relates to the benefits and challenges of each collection discipline. The rankings for this questions were: “Extremely helpful,” “Somewhat helpful,” “Of little help,” and “No help at all.” Then, the students were asked the open-ended question of “The most important thing I learned or took away from this project was?” The final question of the survey was “Would you recommend that these projects be utilized in this course in the future?” The students completed the survey online via Questionpro.com, where the data were collected and stored.

Results

A total of 66 students enrolled in the course participated in the survey. As shown in Tables 1 through 3, with one exception, over 90% of the students responded that all three intelligence collection projects had a “high impact” or “somewhat of an impact” on their understanding of the course material as it related to each issue or concept that the specific project was targeting. In terms of the OSINT project specifically, as shown in Table 1, more than 50% of the respondents indicated that the project had a “high impact” on their understanding of each learning object with the exception of dissemination and the debriefing. Even in those two cases, just under 50% of respondents indicated that the project had a “high impact” on these objectives, 48% for each. The learning objective that received the largest percentage of students to indicate the project had a “high impact” was the collection phase of the TCPED process with 77.42%. When asked, “What impact did the OSINT project have on your overall understanding of the TCPED intelligence collection process,” 75.81% indicated that the project had a high impact on their understanding of the overall objective of the OSINT project.

When students were asked how helpful they found this project in terms of the course material as it relates to the benefits and challenges of open source collection, 67.74% indicated that the assignment was “extremely helpful,” 29.03% “somewhat helpful,” and 3.23% “of little help.” This means that 96.77% of students found the OSINT project at least somewhat helpful in their understanding of the course material as it relates to OSINT collection. The final question the students were asked was the open-ended question, “The most important thing I learned or took away from this project was?” As expected with open-ended questions, there was great variety in the answers provided. There were some key points that stood out as reoccurring in many of the students’ answers. These include: how difficult it can be to sift through the massive amounts of information available on the
<table>
<thead>
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<th>Question</th>
<th>Large Impact (%)</th>
<th>Somewhat of an Impact (%)</th>
<th>Little Impact (%)</th>
<th>No Impact (%)</th>
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<td>What impact did the OSINT project have on your understanding of Tasking in terms of the TCPED process in terms of open source intelligence?</td>
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<td>1.61</td>
<td>1.61</td>
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<td>36.07</td>
<td>3.28</td>
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<td>What impact did the OSINT project have on your understanding of Exploitation in terms of the TCPED process in terms of open source intelligence?</td>
<td>62.9</td>
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</tr>
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<td>What impact did the OSINT project have on your understanding of Dissemination in terms of the TCPED process in terms of open source intelligence?</td>
<td>48.33</td>
<td>43.33</td>
<td>8.33</td>
<td>0</td>
</tr>
<tr>
<td>What impact did the OSINT project have on your overall understanding of the TCPED intelligence collection process?</td>
<td>75.81</td>
<td>20.97</td>
<td>1.61</td>
<td>1.61</td>
</tr>
<tr>
<td>What impact did the “de-briefing” following the OSINT project have on your understanding of open source collection?</td>
<td>48.39</td>
<td>45.16</td>
<td>4.84</td>
<td>1.61</td>
</tr>
<tr>
<td>TABLE 2: Experience and perceived effectiveness of the OSINT project on your understanding of the agent acquisition process</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>What impact did the HUMINT project have on your understanding of Spotters in terms of the agent acquisition cycle?</td>
<td>What impact did the HUMINT project have on your understanding of Assessment in terms of the agent acquisition cycle?</td>
<td>What impact did the HUMINT project have on your understanding of Development in terms of the agent acquisition cycle?</td>
<td>What impact did the HUMINT project have on your understanding of the pitch in terms of the agent acquisition cycle?</td>
</tr>
<tr>
<td>Large Impact (%)</td>
<td>59.32</td>
<td>61.67</td>
<td>64.41</td>
<td>61.67</td>
</tr>
<tr>
<td>Little Impact (%)</td>
<td>35.59</td>
<td>33.33</td>
<td>32.2</td>
<td>30.51</td>
</tr>
<tr>
<td>No Impact (%)</td>
<td>1.69</td>
<td>0</td>
<td>1.67</td>
<td>0.5</td>
</tr>
<tr>
<td>Somewhat of an Impact (%)</td>
<td>5</td>
<td>30</td>
<td>33.33</td>
<td>5.08</td>
</tr>
<tr>
<td>Large Impact (%)</td>
<td>1.69</td>
<td>0</td>
<td>1.67</td>
<td>0.5</td>
</tr>
<tr>
<td>Little Impact (%)</td>
<td>35.59</td>
<td>33.33</td>
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<td>1.69</td>
<td>0</td>
<td>1.67</td>
<td>0.5</td>
</tr>
<tr>
<td>Somewhat of an Impact (%)</td>
<td>5</td>
<td>30</td>
<td>33.33</td>
<td>5.08</td>
</tr>
</tbody>
</table>
Internet; material does not need to be confidential or secret in nature in order for it to have significant value; the need to think outside the box to get the information you’re looking for; and the need to vet sources for reliability and inherent biases. The issue of “fake news” was also raised by a number of students as an issue that made the project challenging.

As shown in Table 2, at least 50 percent of respondents felt that the HUMINT project had a “high impact” on their understanding of each phase of the agent acquisition cycle. The learning objective that received the largest percentage of students to indicate the project had a “high impact” was the pitch phase of the acquisition process with 64.61%. Once again, the de-briefing portion of the exercise received the lowest score with of 51.67%; however, still more than 50% of the students reported that the exercise had a “high impact” on their understanding of the acquisition cycle and an addition 38.33% reported that it had “somewhat of an impact.”

As mentioned earlier, as part of the course content, students received instruction on communications skills, rapport and trust building, and how to elicit information in the context of collecting HUMINT. When students were asked, “How helpful did you find the classes on interviewing and eliciting information in completing this project?”, 70% of the students responded that it was “extremely helpful” and 30% responded that it was “somewhat helpful.” Not a single student responded it “was of little help” or “no help at all.” This seems to indicate that communications and interviewing skills should be considered an important component of any intelligence collection course. To support this conclusion further, when students were asked the open-ended question about what was the most important thing they learned or took away from the HUMINT project, a recurring theme in the majority of the responses was the ability to observe and read people, the importance of having good communication skills, and the importance of building trust with a potential source.

The GEOINT project received high scores in terms of the project having a “high impact” on the students’ level of understanding of the learning objectives of the project with the highest score for understanding the importance of processing and exploitation steps of the intelligence collection process in terms of creating raw Geospatial Intelligence at 75.93% and the lowest score for understanding of the concept of relative location versus absolute location in Geospatial Intelligence with a score of 68.52% (see Table 3). Conversely, the debriefing portion of the GEOINT project received the lowest scores of all the projects with just 42.49% of students indicating that this portion of the exercise had a high impact on their understanding of geospatial intelligence collection. Perhaps this is because of the technical nature of the discipline; actually doing the collection, processing, and exploitation is actually more important than talking about how you did it in terms of understanding the course content.
<table>
<thead>
<tr>
<th>Question</th>
<th>Large Impact (%)</th>
<th>Somewhat of an Impact (%)</th>
<th>Little Impact (%)</th>
<th>No Impact (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>What impact did the GEOINT project have on your understanding of the concept of resolution in Geospatial Intelligence?</td>
<td>72.22</td>
<td>24.07</td>
<td>3.7</td>
<td>0</td>
</tr>
<tr>
<td>What impact did the GEOINT project have on your understanding of the concept of Synoptic coverage in Geospatial Intelligence?</td>
<td>70.37</td>
<td>25.93</td>
<td>3.7</td>
<td>0</td>
</tr>
<tr>
<td>What impact did the GEOINT project have on your understanding of the concept of relative location versus absolute location in Geospatial Intelligence?</td>
<td>68.52</td>
<td>27.78</td>
<td>1.88</td>
<td>1.88</td>
</tr>
<tr>
<td>What impact did the GEOINT project have on your understanding of the concept of a multi-INT approach in processing Geospatial Intelligence data?</td>
<td>70.37</td>
<td>27.28</td>
<td>1.88</td>
<td>0</td>
</tr>
<tr>
<td>What impact did the GEOINT project have on your understanding of the importance of processing and exploitation steps of the intelligence collection process in terms of creating raw Geospatial Intelligence?</td>
<td>75.93</td>
<td>24.07</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>How helpful did you find this project in terms of the course material as it relates to your overall understanding of GEOINT?</td>
<td>74.07</td>
<td>25.93</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>What impact did the “de-briefing” following the GEOINT project have on your understanding of geospatial intelligence collection?</td>
<td>42.49</td>
<td>31.48</td>
<td>22.22</td>
<td>3.7</td>
</tr>
</tbody>
</table>
When asked how helpful they found the project on how the TCPED intelligence collection process is applied to creating raw geospatial intelligence, 64.81% of the students said it was “extremely helpful” and 33.33% said it was “somewhat helpful.” This means that only 1.85% of students responded that the project was of little or no help to their understanding of how the TCPED intelligence collection process is applied to creating raw geospatial intelligence. When asked the open-ended question about what was the most important thing they learned or took away from the GEOINT project, the majority of the answers were about the need balance resolution with synoptic coverage or the importance of a multi-INT approach to GEOINT. It is interesting that these were not the areas that received the highest scores in the close-ended questions about specific learning objectives.

The students’ responses to the questions about the value of each of the individual projects seem to suggest that the students see great value in these projects as a learning tool to teach about the various intelligence collection disciplines. It is perhaps the last question of the survey that gives the best indication of the value of using intelligence collection projects as a whole to build upon more traditional delivery methods of course content. The final question of the survey asked the students, “Would you recommend that these projects be utilized in this course in the future?” One hundred percent of the students responded yes.

Conclusion

The use of experiential learning as a teaching technique allows students to apply what they have learned using more traditional education techniques. Experiential learning has particular value in helping educators overcome challenges and hurdles faced when teaching topics related to intelligence, including the need to maintain operational security, concealing tradecraft, and source protection; students not having a security clearance to allow covering the most relevant topics; and relevant issues of the day coming to light only if there are intelligence failures. This last hurdle is particularly challenging when students do not have a firm grasp of history. This paper examined the specific technique of assigning experiential learning projects to teach intelligence collection, and how the students perceived the impact of these projects on their understanding of the course material.

During the course Intelligence Collection, Processing and Exploitation at St. John’s University, students are required to complete three intelligence collection projects focusing on Open Source (OSINT), Human (HUMINT), and Geospatial (GEOINT) collection disciplines. The OSINT project requires students to collect raw data from the Internet in fulfillment of a specific collection requirement and disseminate it in the form of raw intelligence. The HUMINT projects require students to acquire a potential human source of intelligence that may have access
to specific type of information required to fulfill an intelligence requirement. Finally, the GSOINT project requires students to collect images of a specific target and process and exploit these images, so that they can be utilized as part of a larger finished intelligence product. The goals of these projects are to: reinforce the course content presented in classroom lectures; help the students achieve the overall course objectives; provide students with an understanding of the benefits and challenges of each collection discipline; and allow the students to utilize the knowledge and skills developed within the classroom to actually collect intelligence data and process it into raw intelligence within the context of specific intelligence requirements. While each project was focused on a specific intelligence collection discipline, they also covered issues that crossed over multiple or all collection disciplines such as the TCPED process and the concept of multi-INT approach to create raw intelligence.

This paper also investigated whether these three intelligence products achieved their goal of enhancing student learning and understanding of the course material. Of 66 students enrolled in the course who participated in the survey, with one the exception, over 90% of the students responded that all three intelligence collection projects had a “high impact” or “somewhat of an impact” on their understanding of the course material as it related to each issue or concept that the specific project was targeting. The one surprising result was that debriefing portions of the exercises received lower scores than expected with only 48.4% for the OSINT project, 51.67% for the HUMINT project, and 42.49% of students for the GEOINT project feeling that the debriefings had a large impact on their understanding of that specific collection discipline. The reason this was surprising was that literature on experiential-based learning suggests that debriefing is the most important part of the exercise.

The intelligence collection projects appear to be an effective use of the concept of experiential-based learning to enhance the students’ comprehension of the course material; allow them to apply the skills and tools needed for intelligence collection, processing, and exploitation in a real-world situation; and provide a greater understanding the concepts, issues, and challenges faced in delivering raw intelligence for analysis. That is not to say these projects do not have their weaknesses and could be improved. One major issue that remains unresolved is that these projects are only specifically designed for three of the five intelligence collection disciplines. The reason for this is that the author, because of the highly technical nature of these two other disciplines, has not yet been able to design projects specifically for SIGINT or MASINT collection. However, in terms of the other three collection disciplines, the students who participated in the three intelligence collection projects consider them a valuable tool. Perhaps nothing exhibits this more than the fact that 100% of the students surveyed recommend that these projects be utilized in this course in the future.
References


