



RICS School Ambassador Induction Course

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Abstract

The goal of this project was to develop a training program for the Royal Institution of Chartered Surveyors for their school ambassadors to ensure the delivery of a consistent message and help inspire students to become surveyors. Created for this project was a structure for an online training course with key areas that individual videos will address, a tutorial for an in-person workshop, and a handbook to accompany the training course. The areas chosen to address were determined through interviews with stakeholders in RICS and outside companies, surveys with school ambassadors, and school visits. Ambassadors will be able to choose which variation of the training course they may complete and deliver consistent presentations to inspire a new generation of surveyors.

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Executive Summary

Background

The profession of surveying has faced a severe skills shortage over the last few years. An increase in demand for professional surveyors has left many unfilled jobs across the United Kingdom in the construction sector. Adding to this issue, the average age of a surveyor in the United Kingdom is approximately fifty-five, with the average retirement age being around sixty-five. Due to these facts, the profession is quickly losing a large portion of its workforce. In order to combat this trend, the Royal Institution of Chartered Surveyors (RICS) has become increasingly interested in inspiring the next generation of young surveyors. As part of this initiative RICS is looking to develop a training program for its member volunteers who present to students in schools on the field of surveying. RICS hopes that the development of this program will enable these presenters to be more effective at engaging students and interesting them in the field of surveying.

Currently volunteers work independently of RICS in facilitating these presentations, presenting in schools without notifying the organization. In addition, volunteers are rarely experienced in delivering presentations, and in some cases are not properly conveying RICS's message to students.

Objectives

Therefore, RICS has instructed this team to develop a training program in order to add consistency to their message through these presentations and inspire a greater number of students. These presentations are focused on targeting students between the ages of eleven and nineteen. The program must efficiently use RICS resources to train school ambassadors, requiring minimal staffing while being more thorough than the currently implemented orientation materials. In order to accomplish this goal, the team began by determining the media form and materials that must be contained in this training. This was followed by the creation of

an outline for the selected media form to allow future development of the course. Finally the training and presentation materials for school ambassadors were produced.

Conclusions and Recommendations

By following the objectives set forth by this team and through the research, interviews, surveys, and focus groups conducted, it has been determined that this training program should be distributed through multiple avenues of communication. This team recommends that the course therefore be conducted in small workshops given by experienced school ambassadors working in tandem with RICS, as well as through an e-learning service once RICS has developed this platform. In order to represent RICS as a school ambassador, it is required that a prospective volunteer complete either form of training. This training will cover basic presentation tips, material needed for the presentations, the proper procedures for communication with schools, as well as guidelines on how to interact with students and what responsibilities should be delegated to the teacher.

We also recognize that RICS members volunteer for this position and thus have limited time. Therefore, in-person workshops will be conducted on their own time, and will likely take place only semi-regularly. It is recommended that local member groups hold their training courses whenever possible, and whenever a demand exists. For the majority of ambassadors, nevertheless, attending a face-to-face session is impractical. To ensure that this training program will be able to reach as many volunteers as possible, this team has also developed the structure for an online course to be given through the e-learning platform that RICS plans to develop. This course will utilize micro-learning techniques, where individual concepts are broken down into videos. Each of these short videos will be followed by a quick quiz to assess retention of key points. Completion of each of these quizzes is a requirement to finish the online course.

Finishing either of these training programs will allow volunteers to be officially certified as part of RICS's school ambassador program. Upon completion of this program, they will be given access to the presentation itself, which they may modify as they see fit, as well as a printable review handbook covering the material in the training, an FAQ sheet that will answer the students' most common questions, and a list of possible activities for ambassadors to conduct

in schools. It is this team's hope that the volunteers make use of all these materials in their own way, and caters their presentations to the school in question and their own experiences.

These training programs are intended to instruct aspiring ambassadors in the logistics of completing a presentation. A proper training program will end with the volunteers knowing how to arrange a visit with schools, send a consistent message to the students, set up activities, and adhere to student safety guidelines. However, it is also an opportunity to inspire these volunteers to motivate students. These courses will allow ambassadors to formulate new ideas on how to engage with students and inspire the next generation of surveyors through their presentations.

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Introduction

Surveying is a well-established, long standing profession, one that has been instrumental in the development of the modern city. It is a profession that as of 2013 employed over sixty thousand people across the United Kingdom. However, that number is on the decline. As of 2014, that number had dropped to fifty-four thousand, and has continued to drop (Office of National Statistics UK, 2016). At the same time, demand for housing, office, and commercial space has increased across the country as population continues to grow. Surveyors are integral in many ways to property development, from making sure that property lines are adhered by, to managing the costs and materials required for a certain project. With the availability of surveyors on the decline and the demand for the profession on the rise, the United Kingdom is facing a shortage of skilled labor that threatens to slow development and growth.

The Royal Institution of Chartered Surveyors (RICS), which accredits surveying education throughout the UK, founded RICS Matrics in order to act as a network for people who have recently entered or are planning to enter the field of surveying. Since its conception, Matrics has worked to develop a network of surveyors to gain contacts and increase interest for the field within the general populace. Since the most recent economic downturn, RICS Matrics has realized the need to revitalize interest in young people for the field of surveying. (RICS, 2016) This interest in a younger generation is in part due to the fact that the average age of surveyors is fifty-five, and many will retire soon (Mortgage Finance Gazette, 2011). The programs implemented by Matrics have been successful, but more work is needed. RICS requires a large member base in order to remain operating and to continue to be relevant on a global scale, inspiring the next generation of surveyors is what will ensure the longevity and relevance of their organization. Therefore, it is necessary for RICS to understand any perceived shortcomings within their programs, and develop methods for improvement.

RICS has a mission to increase their talent pool by inspiring the next generation of surveyors. They have developed a five-year plan to increase the appeal of surveying by promoting greater awareness among a diverse background of students. A major part of this plan involves surveyors volunteering to go into secondary schools and giving presentations in order to spread awareness of surveying as a career and inspire students to become a part of the

profession. Our primary focus in this endeavor is the volunteers giving these presentations at school assemblies, after school meetings, and career fairs.

Our project involves collaborating with RICS to begin the development of an induction training program that will allow volunteers to be as effective as possible in their presentations. In order to do this, we first assessed the concerns and ideas of key stakeholders within and outside RICS through various research methods of data collection. With this comprehensive data we evaluated the shortcomings of the current program, as well as used the ideas that developed through this research process to integrate them into the creation of this training program. The most critical factor determined through this data was the form of delivery the training should take. As conclusions were drawn from these results, we worked to develop an outline for the training program as well as produce materials that could be used by RICS members to prepare for presentations.

2 Literature Review

2.1 Introduction

This section will present previous research in several areas, including the field of surveying in relation to RICS, the current problem, presentation methods to resolve the issue, as well as what other institutions are doing in this area to ensure the continuation of their organizations. All of these factors will link to our process of analyzing and solving the issues presented by RICS.

2.2 Surveying & RICS

2.2.1 What is Surveying?

Surveying is an integral part of infrastructure in the development of a country, both economically and socially. The field ensures the proper planning and facilitation of construction

in order to create commercial, residential, industrial, and public development. A large aspect of the field is centered on urban planning, ensuring that the wishes of the developer can be met with respect to space, cost, and resources. It also ensures that the plans for building are feasible and will not encroach upon other development plans or negatively affect the environment with respect to the laws established by zoning and other government entities.

Surveying can be broken into three sectors, Land, Construction, and Property Surveying. The Land sector mainly covers land and hydrographic mapping and positioning and is oriented in more rural environments involving land conservation, and large scale mapping projects. Land surveyors use a variety of concepts in the field of engineering, physics, and mathematics as well as tools specifically designed to acquire angles and dimensional calculations from distances. The Property sector encompasses the legal and sales environment and centers around property evaluation, feasibility, and valuation. Property surveyors can also act as an important liaison for communication between property owners and anyone looking to use said property, be it commercial or residential property. They can even be involved in machinery, arts, and antiques. The construction sector is involved with almost all aspects of the construction industry. Construction surveyors can focus on project management, materials evaluation and cost management, and building regulations and safety. These three broad sectors can further be broken down into seventeen specific areas of expertise, which together encompass a full 108 distinct services (RICS, 2016).

2.2.2 History of Surveying & RICS

The history of RICS can be traced back to 1791. A Surveyors Club was formed in order to establish a professional association to represent surveyors and the growing property profession. In 1868, the Institution of Surveyors were founded and located at 12 Great George Street, which still in use today. In 1930, the institution became the “Chartered Surveyors’ Institution”. In 1946, George VI granted the title “Royal” and the institute became the Royal Institution of Chartered Surveyors.

Before the establishment of official education in the field of surveying, surveyors were trained as pupils to an established surveyor, with little to no formal education. The apprentice

focused solely on learning the craft by working alongside the master. As the leader in the field, the Royal Institution of Chartered Surveyors (RICS) first implemented examinations in an attempt to standardize the surveyor's preparation for professional work in 1881 (de Silva, 2014). Due to established surveyors financially relying on the pupils, RICS did not want to remove the apprentice component from the educational structure. Nevertheless, colleges such as Leeds, Yorkshire, and Durham College of Science eventually gained recognition from Cambridge University and Edinburgh University for their education of land agents. Following this recognition there was a renewed debate in the field in favor of formal education.

In 1939, RICS released their first major report on education. They deemed it necessary to have four years of learning under an approved surveyor before the examinations to become a professional surveyor. Throughout the 20th century, the field of surveying was constantly being redefined to include more aspects of surveying and as a result more people were needed to teach all the various specialties of surveying. For example, RICS has a glossary of over 100 specialties that qualify as part of the field of surveying ranging from agriculture management to asbestos inspections to mapping (RICS, 2016). Starting in the 1950s, RICS no longer emphasized a specific path to qualifying as a professional whether it be a vocational degree from a university, being a full time student at an approved school of instruction, or practical training with some external education (Thompson, 1968).

During the 1960s and 1970s, there was an expansion of surveying courses in technical schools. The preferred entry into the profession continued to change, with so called "sandwich" attendance (Plimmer, 2003). This sandwich attendance allowed students technical experience for 2 years along with academic courses. Surveyors seeking to get a job were required to have at least 2 years of technical experience. This requirement was formalized into the Test of Professional Competence (which presently goes by the name of Assessment of Professional Competence). In the 1967 education report, RICS had switched its stance of preferred education, hoping that most of the entrants to RICS had a university level education (RICS, 1967). The main reason for RICS switching stances on education is that while they received more quality entry level surveyors when they were educated at a university, there was a decrease in the amount of people that wanted to become surveyors (Wilkinson, Hoxley, 2005). Currently, there

are over 500 RICS accredited courses within the United Kingdom. These courses are validated by RICS to certify that they are in accordance with RICS standards. The accreditation process includes an audit which reviews the course layout and documentation, as well as the research done at the educational body.

2.2.3 Surveying Education

After decades of discussion, in 1991 RICS made their Continued Professional Development plan mandatory. The Continued Professional Development plan required all corporate members of RICS to be able to demonstrate at least 60 hours of structured learning over the course of three years. By the mid-1990s RICS had abandoned the examinations to become a professional surveyor. This change meant that the universities were in control of the curriculum of educating surveyors (Young, Smith, and Murphy 2012). Currently, there is an ongoing debate surrounding the decision of RICS to completely eliminate the examinations of university students. There is debate between the value of a university educated surveyor and one that has been trained through practical methods coupled with some education. The main proponents for university education claim that the schools produce higher quality surveyors that are able to do good work for RICS when they are hired. However, the counter arguments against university education include a decrease in people interested in surveying due to either cost of schooling, low starting salary, simply changing their mind partway through their education, or a combination of these things (Mackmin, 2001). These debates have occurred throughout the history of surveying companies, mimicking the counterpoints of two of the founding members of RICS, William Sturge, who favored practical learning, and Jeremiah Matthews, who supported university learning.

2.2.4 RICS Matrics

RICS Matrics has its roots in the RICS Junior Committee, established in 1889, and it became what is known today as Matrics in 2003. It was established to provide educational support, networking platform for new qualified surveyors. Currently, RICS Matrics provides a network, support and voice for its members and a source of vigor for the surveying profession

for students, trainees and newly qualified surveyors (RICS 2015). RICS Matrics visited 200 schools and held workshop events in 2015, which include a presentation and interactive session to students (RICS 2015). RICS Matrics also attends career fairs across the UK, and provides career advice through University partnerships. These programs are part of their strategy to inspire a new generation of surveyors as the Matrics division believes in its ability to shape the future by influencing young people, as well as providing career opportunities for the volunteers. Matrics has experienced success in the past, but in order for their success to continue they rely on members to get involved and share their views.

2.2.5 School Ambassador Program

RICS Matrics, to help with its goal of inspiring the next generation, has initiated a widespread school ambassador program. Through it, volunteer surveyors attend many school across the country to give presentations about surveying to students who may not even know that the profession exists. The presentations are intended to spread awareness of the profession of surveying, and raise the profile of the career among young students. Therefore, the main audience for the presentations tends to be secondary school, ages 12 - 18. However, volunteers also occasionally attend primary school, and so may face an audience as young as 6 years old (Rogers, 2016). Contrary to many professions, which may give a school-wide presentation, RICS tends to attend individual classrooms. This smaller audience allows volunteers to more personally engage with students and utilize interactive components in their presentations. RICS Matrics is also currently redeveloping their presentation material to let volunteers further use interactive activities and adapt their presentation to be more personal.

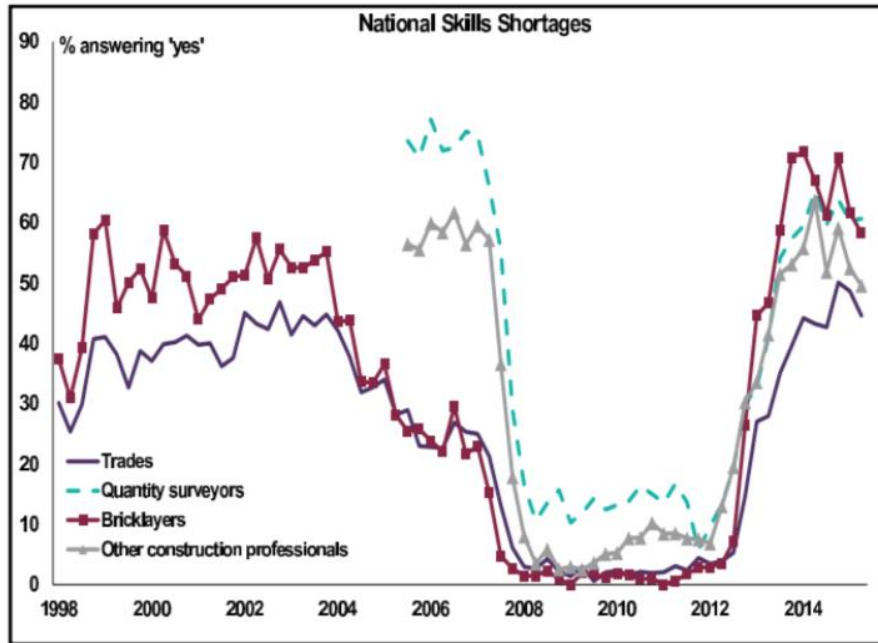
2.3 The Problem

2.3.1 National Skills Shortage

In recent years, the United Kingdom has faced a shortage of skilled workers. As shown in Figure 1, there has been a continual shortage of quantity surveyors to oversee construction

projects. Although the demand dropped quickly during the 2008 recession, it has since spiked past pre-recession levels. Construction firms have experienced difficulties in recruiting skilled labor to meet the demand, and as a result, this shortage of surveyors has had its own impact on the rising price of development in the UK (Tom de Castella, 2015). London in particular has faced exorbitant increases in the cost of residential property over the past few years even in comparison to the rest of the UK, as shown in Figure 2. In addition, only 12% of building surveyors in RICS are under the age of 35. The average age of surveyors in the UK is over 55 (Mortgage Finance Gazette, 2011). Within the next decade, the surveying industry will face record amounts of retirements, which will only create further shortages.

Figure 1 Shortage of Workers in Construction



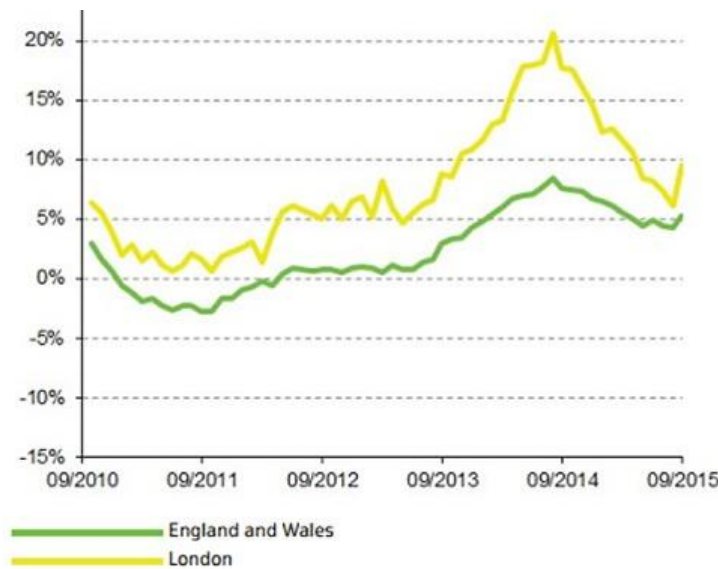
(RICS, 2016)

As shown by Figure 2 the recession has had the effect of resetting the job market for surveyors. The pre-recession job market for surveyors was poor; there was approximately 10 quantity surveyors looking for work for every 1 available job (Mann, 2016). After the market's recovery, there now is a demand for surveyors while the previous low demand from 2008 to 2012 has prevented the next generation of the work force from taking on this career field (Mann,

2016). As a result, 54% of construction firms are reporting a shortage in quantity surveyors while companies like RICS are also reporting a low supply of people interested in being educated to become a surveyor (Kverndal, 2015).

According to a 2016 news report from The Guardian, private housebuilding in February rose 3.9% from January, which is its fastest growth since 2010. However, other indicators show the whole construction sector remains slow (The Guardian, 2016). With London's population expected to increase from 8.5 million to 11 million by the year 2039, the city is on the cusp of a massive housing crisis (Evening Standard 2015).

Figure 2 Average Changes in Residential Property Prices



(Telegraph, 2015)

2.3.2 Issues Attracting Students

With the United Kingdom currently facing a severe shortage in many branches of the surveying industry, one has to look at some of the reasons that there are not more students entering the workforce. Between 1994 and 2001 the number of UK student surveyors dropped from 4,700 to 2,400. Overall, students enrolled in accredited courses fell from 19,000 to 14,000

from 1996 to 2001 (RICS, 1999b). In some cases, it is a result of a lack of exposure to the field, with little advertising presented to students, and little name recognition within the general public. In many cases, however, students have simply decided that the cost of education is not worth the eventual salary. At current levels in the United Kingdom, the starting salary of a surveyor is between £19,000 and £25,000, while after 10 to 15 years of experience as a chartered surveyor, the salary will be between £35,000 and £62,000 (AGCAS editors, 2014). In 2015, the median salary among all surveyors is around £25,500, which when compared to the general UK populace median salary of £26,500 simply comes up short (National Careers Service, 2016). To become a building surveyor in the United Kingdom, the individual is required to complete a degree course accredited by the RICS (National Careers Service, 2016). An accredited building surveying degree program is offered by many universities, such as Kingston University, University of Salford, and Birmingham City University. These programs will cost about £9,000 per year, and require 3 years of full time attendance (Kingston University London, 2016; University of Salford Manchester, 2016; Birmingham City University, 2016). More importantly, however, is the opportunity cost associated with an extra three years of schooling. To give up those years of income in order to be hired at a job that pays lower than the national average is perhaps a major influence on a student's choice of career path.

2.3.4 Miscommunication in Presentations

RICS believes that their school ambassador program can be vastly improved. The main concerns of RICS are whether the messages being carried by the presenter are consistent and proper. Due to the fact that the field of surveying is broad the specialty of the presenters can be different. Therefore, the introduction to the jobs of surveying can be described differently and biased based on presenter's own background experiences. In some cases, some presenters failed to provide correct and detailed answers when questions regarding to their unfamiliar field of surveying were asked. If the volunteers that deliver these presentations all had the same training and delivered the same message, they might have more luck in recruiting the students to want to become a surveyor.

2.4 Education & Presentations

2.4.1 How People Learn

In any area of study, there are many aspects to consider in how they draw interest. These include teaching, learning styles, the classroom environment, and the topic itself. There is knowledge and then there is the ability to teach through effective methods (E. Stevenson and J. McArthur, 2015). Teaching methods are what create a good environment for learning. Being able to convey the knowledge is just as important as having the knowledge itself, and the ability to engage students stems from how the knowledge is conveyed. There are suggestions that this correlation between engagement in the topic and the teaching method being used is based off of course design, student engagement and feedback (E. Stevenson and J. McArthur, 2015). With these three elements being used in the creation of an effective curriculum the education will begin to attract students to the course and field.

The Felder-Silverman Model, originally published in 1988 and continually developed since, broke down the theory of education into a number of categories based on the type of learner the student is. These categories are: perception, input, organization, processing, and understanding (Felder, Silverman, 1988). Each of these categories corresponds to an effective method of teaching, and knowledge of the student's preferred learning method can help an educator effectively tailor a curriculum to the learner. Widely used is the Sarasin model, which further breaks learning styles down into the categories of visual, auditory, and kinesthetic learning. This is commonly used in traditional education, such as lecturing, and involves the learner's reaction to external stimuli (Dominic, Francis, 2013). The Felder-Silverman Model with the subset of the Sarasin model has become widely accepted across multiple fields, and provides an effective base of understanding into education theory.

2.4.2 Delivering a Successful Presentation

Delivering a successful presentation is not easy, but it is an important part of many people's work. Despite this, presentation skills are rarely formally taught to anyone. Due to this,

many people get anxious while delivering a presentation. This anxiety can be avoided if the presenter is as prepared as possible (Keshavan, Tandon, 2012).

Knowing the material as best as can be will make the presenter more confident in their abilities. Rehearsing the slides and knowing what could go wrong during the presentation will allow the presenter to be graceful during the presentation (Thorne, Ebbinghaus, 2005). It is important to get across the point of the presentation right as you start talking. This is done through a good introduction.

The introduction is where the presenter gives the audience the context of presentation. The question the presenter is trying to answer is outlined here along with the relevance of the question. Many times, this is skipped and the presenter only reads the title and goes right into the details. This is problematic because it fails to engage the audience in the problem at hand and also, the presenter fails to introduce themselves and they don't establish their credibility in the topic (Shuck, Phillips 1999).

Slide layout, transitions, and visual aids all are an important part of a good presentation. There shouldn't be too much information on one slide, and limiting the amount of text on the slides encourages the listener to focus more on the presenter rather than reading the slides. Visual aids can greatly enhance the presentation, but only if they are relevant and are good quality so that everyone can see the picture well. Transitions between slides gives the presentation a logical and smooth flow (Cuddy, Kohut, Neffinger, 2013). This helps the audience know how certain parts of the presentation are related.

Practice and effort into making the slides are required to make a presentation successful. Establishing the context and relevance of what the presentation includes is an important aspect of maintaining the interest of the audience. The audience needs to be engaged in order for them to take away the key points of the presentation and the slideshow needs to be structured logically and carefully in order to control the stage and deliver an effective presentation.

Once materials have been created, the willingness of the audience to accept the information is still dependent on the speaker's delivery. There are many minute aspects to delivering a presentation that a speaker may not even think of. The ultimate goal of the presentation is to convince the audience that the message is important to them. In order to

believe this, the audience needs to trust, respect, and in some way relate to the speaker. A major component in trust is the visible confidence of the speaker, which is affected both by how well they know the material, but also by the speaker's mannerisms. Aspects such as the speaker's facial expressions, posture, physical gestures, and eye contact, as well as their overall speaking pace will all play into the audience's reception of the message (Silvis 2015). As such, it is important to make sure that the speaker is aware of how they act while giving a presentation

2.4.3 Utilizing Interactive Teaching

Course design is the most controllable aspect of educational models as it is at the discretion of the teacher and the educational body. In order to make course design more effective, implementing multiple teaching methods is necessary in order to align teaching methods with the known learning methods that students have. Direct instruction and indirect instruction are the most common teaching methods in higher level education and are demonstrated through lecturing, where a teacher demonstrates how a concept works (indirect) or demonstrates the use of a skill (direct) (Petrina, 2015). However, research has shown that lecturing is not the most effective method of teaching in order to fully take advantage of the learning styles (Hofstein, Lunetta, 2003). Therefore, it should be accompanied with hands-on learning in order to strengthen students' ability to learn in a course.

In large courses and learning environments, it is important to address the universal learning methods and engage large groups of students with matching teaching methods to facilitate these goals. Therefore, much of prevailing education theory is in regards to multimodal learning. Multimodal learning involves combining several modes of learning to reach a broad spectrum of learning styles and thus integrate corresponding teaching styles into course design. In many branches of education teachers will often strive to use multiple modes of teaching (Kress, 2001). By integrating multimodal teaching, not only is each student able to be taught effectively, but students will intuitively learn more efficiently when presented with various teaching methods.

The structure of STEM is a good example of how to integrate teaching methods. Complimenting lectures with hands-on teaching creates this multimodal endeavor. This teaching

style is modeled by either interactive instruction, or independent study. In these teaching methods, teachers create an environment where students use experimental learning, meaning students learn through interacting with the material on a personal level either with the teacher's involvement guiding them or without (Petrina, 2015). For example, through lab work, students must solve problems using lecture materials and are forced to make connections between the concepts taught in lecture and the application of the knowledge in lab. Use of laboratory learning has shown to be effective for decades through various experiments on all aspects of laboratory work (Hofstein, Lunetta, 2003). Due to the fact that such extensive research has been done showing its effectiveness for decades in STEM teaching, implementing this into an educational system would prove effective at engaging students and restructuring learning to provide a more hands on environment for learning. It is suggested that the key to making teaching effective is "learning by inquiry" in which research is conducted that leads to the creation of an assertion that will lead to the solution to the problem presented (Hofstein, Lunetta, 2003). By doing this, each method of teaching can be used to present a unique function as a part of the larger lesson, which increases the students' interest as well as increasing their active involvement in the lesson (Kress, 2001). In addition, the act of rotating between multiple modes can cause students to 'translate' information between various styles of learning. This act of translation can increase ease of recalling information in certain cases (Rackie, 2015).

Use of the experimental learning with independent study has shown to be productive even outside of higher education. (Stohlmann, Moore, Roehrig, 2012). A study was done attempting to see how students and instructors responded when students were the primary teachers in their learning experience through hands on laboratory experimentation with little given instruction from teachers. Though teachers were uncomfortable with guiding students so loosely, students had to have greater interaction with the subject matter in order to succeed and were found to be more interested in the topic (Stohlmann, Moore, Roehrig, 2012). Though this is a new strategy for lower level learning, it is common in high level learning for STEM education.

STEM education provides us with a platform for multimodal, interactive learning through use of lectures and laboratory work in conjunction. This multimodal approach allows for multiple learning methods to be satisfied by the course structure in order to maximize the

learning potential of the students and better engage students in the classroom. Though this is not currently employed in RICS's teaching environment it will be important to make teachers comfortable with this method of teaching in order to redesign RICS's education.

2.4.3 Using Multimedia

An important aspect in presentation in recent years is the expansion of the use of multimedia such as videos, webinars, and interactive games. Using multimedia to help deliver presentations and lectures allows for a consistent message to be sent out every time it is utilized. By using multimedia, the target audience can learn more effectively due to how people naturally learn. Multimedia allows the presenter the ability to engage students on a visual and auditory level at the same time, utilizing multiple channels of teach (Clark, Mayer 2011). This means that when in a normal presentation where audio is the primary learning media and there is little engagement, the presenter can now use visuals to further stimulate the audience and allow them to better respond to external stimuli. Along with this, multimedia presentations offer the presenter an opportunity to follow up with multimedia materials that allow interested students to continue learning on the topic outside of the presentation (Clark, Mayer 2011). By using both the visual and pictorial model in combination it becomes much easier for the presenter to help establish the presentation in the audience's long term memory, therefore creating a lasting impression of the details being presented.

A main organizational part of involvement of multimedia in a presentation is focused around making material easy to digest for the audience. To do this the simplicity of the presentation and ensuring that the visual and auditory elements of the presentation align are important to ensuring people learn consistently and that this method in fact enhances their learning instead of hindering it with over complication and unnecessary facts.

3 Methods

3.1 Objectives

Our goal for this project has been to help develop an induction course for school ambassadors. This will serve to improve the effectiveness of RICS's school ambassador presentations and to ensure these presentations send a consistent message to students as well as to increase student's interest in the field of surveying. The presentations are focused on targeting students between the ages of eleven and nineteen. The program must efficiently use RICS resources to train student ambassadors, requiring minimal staffing while being more thorough than the currently implemented orientation materials. In order to accomplish this goal, the following objectives have been established:

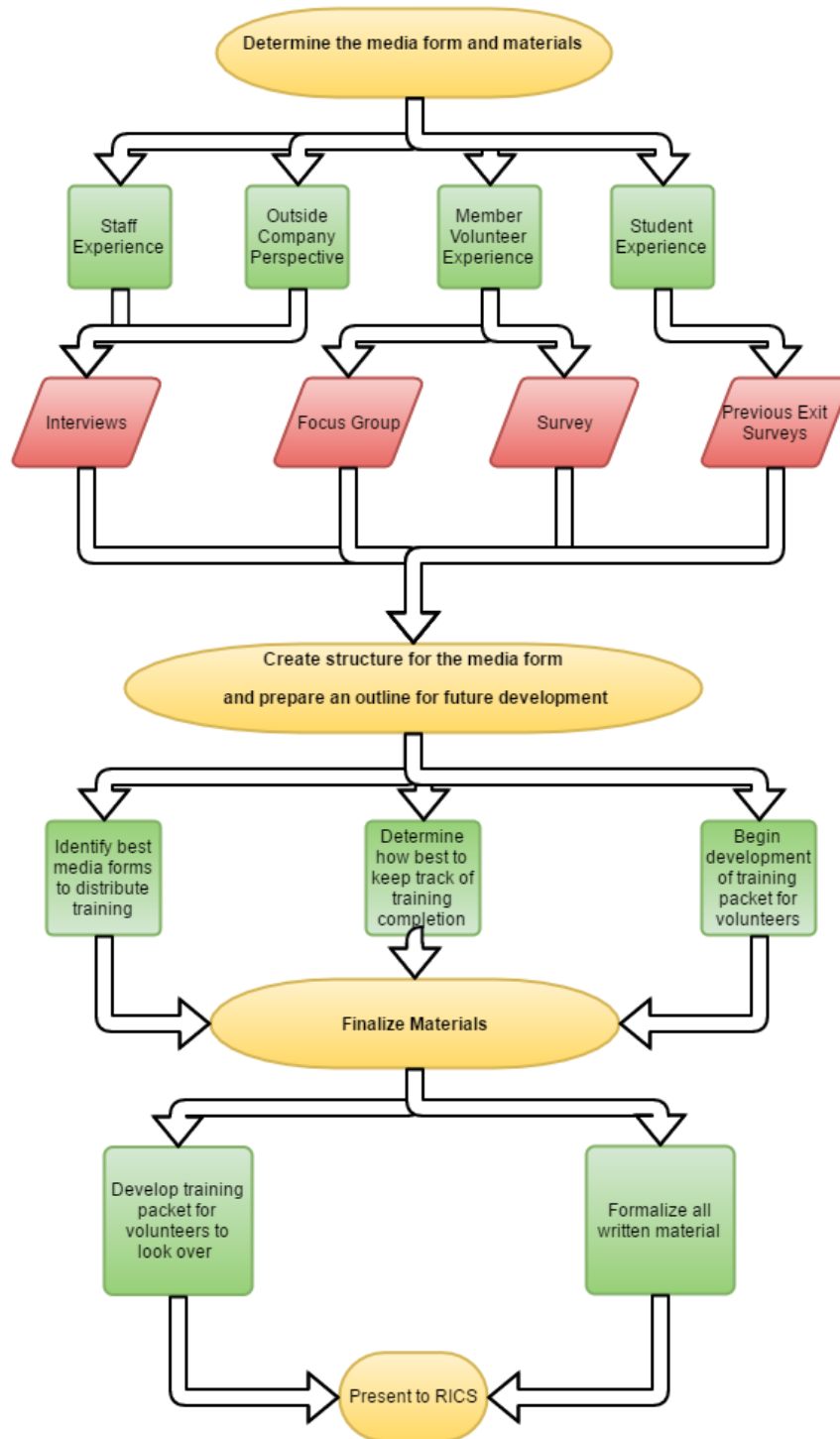
Objective A: Determine the media form and materials that must be contained in order to ensure consistent training of school ambassadors.

Objective B: Create the outline for the selected structure for the media form that will be used in the future development of a complete induction program as well as recommendations for delivery.

Objective C: Create the training and presenting materials that guide the school ambassadors in their presentation and organize the presentations to ensure a consistent message.

The diagram in Figure 3 indicates our approach to creating an effective induction course for RICS.

Figure 3 Flowchart of our Methodology



3.2 An Overview of Possible Methods

In order to complete this process effectively, this team found it pertinent to employ various different methods of data collection and analysis in order to complete the objectives discussed above. The methods determined to be useful for this project were a combination of surveys, interviews and focus groups. Surveys can be done in many possible ways which are shown in Table 1. This table outlines the benefits and disadvantages of some of the possible ways to distribute our survey and the pros and cons of conducting a focus group. Our survey and focus group, would target the member volunteers that are giving presentations. This table was compiled prior to arriving in London and each of the pros and cons were researched by the team as a way to figure out which data collection methods to use.

Table 1 Pros and Cons of Various Data Collection Methods

Method	Pros	Cons
Telephone Survey	Most efficient. Can be done at most ten minutes per person.	Participant might not be free to answer.
Email a survey link	Most convenience. Easy to set up.	Don't know how long it can take to get response. Can be difficult to get responses.
Focus group	Can have more questions and discussion, which can help us to understand more.	Can be difficult to recruit participator.
Interview	One on one environment allows interviewer to focus on individual	Construction of ideas through multiple people not possible as in focus group

As shown through the table above, surveys are easier than focus groups to conduct, but they do not allow for as much data collection as a focus group. With a telephone survey, it is easy to control the time being spent and if the participants are not free to answer at a certain time, contact with them can be reestablished at another time. An online platform such as Qualtrics may be the most convenient way to distribute a survey. To get responses, the team would distribute an email link. However, with these digital surveys, the quantity and quality of responses when compared with paper surveys may be lacking.

Conducting a focus group allows us to obtain the most information within the shortest period of time when compared to all of these methods. It will enable us to develop follow up questions based on a participant's answer to the original questions. With multiple sessions of this focus group, we can gain diverse opinions on how RICS's training program should be structured. When compared to interviews, it will be harder to ask specific questions to an individual in a focus group. However, an interview does not allow for the collaborative aspect that a focus group often does.

3.3 Data Collection Methods

The first task this team accomplished in this project was to determine what member volunteers required to make these presentations to children in schools more successful. A timeline of the group's process in going about this project is shown in Appendix A. The initial step in doing this was to analyze the deficiencies in the current presentations and learn what RICS is looking to have implemented into their school presentations. In order to analyze the faults in these presentations and find what RICS is looking to include in this induction course, we began by interviewing some key stakeholders in RICS that were relevant to the project. This included members of RICS Matrics, the Member Services Managers, and the head of Member Engagement and Involvement. We then used these interviews to gain insight into how they influenced the volunteers who are currently visiting schools and the type of queries they were addressing in this area. In addition, these interviews helped determine what media form was most appropriate to deliver this induction course and highlighted the limitations that RICS has for each potential delivery method we considered. Interviews were then conducted with other

organizations that give presentations to students at schools, such as STEMNET, CBRE, Transport for London and Crossrail. These interviews were then used to determine how these companies' induction courses differ and to get opinions on new and innovative ways to accomplish greater student involvement in presentations through bettering volunteers' ability to present to these students. For a full list of our interviews, please see Table 3.

During this interview process school visits were also conducted. These allowed us to achieve a student perspective of these presentations, and a better understanding of what students would like to see through these presentations. Two schools were visited in this process, the Royal Greenwich UTC and Mulberry School for Girls. After holding these interviews and school visits, we organized a focus group with member volunteers involved in RICS Matrics. This focus group primarily served to determine the needs of member volunteers in regards to any additional presentation materials, or training requirements. The questions asked in the focus group can be found in Appendix C. By using a focus group, we hoped that member volunteers would be able to reach a consensus regarding both the current state of the presentations, as well as determine as a group what they believed could make their presentations more interesting. Our focus group was limited by the location of member volunteers across the United Kingdom and their availability to meet. The focus group that we conducted had three participants who thoroughly collaborated to help answer the questions we presented them. In order to correctly capture the answers presented in the focus group and interviews, recordings of each session were made. The important answers and quotations of the group were then transcribed into a document that allowed a visual representation for the project team to better dissect the answers that were given. This served to generate the next step in creating a solution to RICS's issues.

Upon receiving the data from our focus group participants, we constructed a survey for member volunteers across the United Kingdom. This survey, like the focus group, was intended to determine the needs of the presenters, more specifically what materials and support the volunteers need in order to conduct better presentations for young students and what form of training they believe would be most effective for them. In order to ensure the survey questions are both relevant and appropriate, it was important to converse with RICS and have the questions that we created approved by them. The survey questions can be found in Appendix B. While the

focus group helped us gain a more complete understanding of the opinions of the participants, the survey helped us reach a broader audience. Moreover, our focus group was limited to the London area, and may thus be biased to that geographical area. By contrast, a survey allowed us to reach across the UK, including Scotland and Northern Ireland, and therefore provided a more representative view of the whole region. While our survey will ask the opinions of participants, in order to accurately critique the effectiveness of presentations and communicate that effectiveness to RICS, we condensed those opinions into numerical forms. Therefore, while the survey asked for the participant's agreement to a certain statement, we were able to graph percentages for responses among all participants. Statistically this allowed us to find how the sample of surveyors as a whole viewed the support they were receiving. Once these data points were collected and numerically evaluated, we were able to communicate the observed weak-points of the program to RICS, as well as what members would like to see in an induction program, and work to develop a course that satisfies the needs of the members at the constraints of RICS's resources. Most importantly this data demonstrated a broader understanding of what both inhibits and enhances the appeal of surveying to young people. By distributing surveys after the focus group was completed, we were able to use the results to more effectively craft our surveys. This allowed the data to be more relevant to us than it may have been if the focus group had been conducted after the survey.

3.4 Creating Deliverables Based on the Data

Based on the results of our methods, we developed both the outline for the induction course in order to enable its future development as well as the support materials for member volunteers to aid them in their presentations. These all served to help deliver a consistent message to students that aligns with RICS's objectives of adding interest in the surveying field. In providing these materials, it is our hope that they will enable member volunteers to focus on making their presentations more engaging using the guidelines set out through these materials. This course design includes the presentation methods we believe will work towards better student engagement, as well as what method of delivery we believe RICS should employ in order to maximize the effectiveness of this course in presenting surveying as a field to students. Using

the resources of RICS will be integral to the redesign of this course to attract more students. The outline presented focuses on the areas that we deemed important based on the analysis of the data collected through our survey, interviews and focus group.

The decision as to how this induction will be delivered has been determined by these data collection methods as well. Our suggestions and outline for how to create this induction course serve as the project team’s main deliverable to RICS for this project, along with our final report and the data collected.

4 Data Findings

In order to adhere to these methods and achieve thorough, complete research for the development of the ambassador induction program, various stakeholders were included in our discussion and data collection process in order to ensure that the ideas and concerns of all relevant parties were met. The themes communicated by these parties are presented Table 2.

Table 2 Common Themes from Key Stakeholders

Stakeholder	Concerns	Ideas for Product
RICS Matrix	Giving a consistent message to schools, reaching a broad audience	Face-to face as well as online training to reach all member volunteers
RICS Marketing	Matching materials to presentations	Involve new materials being created and match presentation style to materials
Member Volunteers	Being provided the proper materials to be effective in presenting and well informed	More interactive activities that engage students and grab interest
Students	Being engaged by content	Personal stories of Surveyors

All of these stakeholders’ concerns were taken into account when working to develop the induction program, along with their ideas for the products that should be created by this team. In

total, the group conducted eleven interviews with individuals both inside and outside RICS. These interviews served to give various perspectives on how training is being conducted in other organizations and what stakeholders would like to see from this induction course. A complete record of the interviews made is in Table 3.

Table 3 Interviews Conducted

Interviewee	Role Organization	Date	Subject of Interview
Steve Watkins	RICS Marketing	5/19/2016	Marketing aspect of course, what is being produced now
Tiger De Souza	RICS Member Services	5/20/2016	Spoke about RICS's Member induction and what we could take away from that
James Baker	Chairman of RICS Matrics	5/26/2016	Presented our initial findings and exchanged thoughts on how to improve the course. Gave us resources to use for contacting member volunteers
Amy Leader	Vice Chairman of RICS Matrics	5/26/2016	Presented our initial findings and exchanged thoughts on how to improve the course. Gave us resources to use for contacting member volunteers
Steve Watkins	RICS Marketing	5/31/2016	Talk through the marketing collateral we are producing and access / tracking via web of the training.
Lauren Hiller	Crossrail	6/1/2016	Discussed what Young Crossrail does for presentations in schools. Uses STEMNET ambassador training for volunteers.
Vicky Entwistle	RICS	6/1/2016	Suggestions for how to conduct the course, more member contacts
Patricia King	TfL	6/3/2016	Children Protection and Evaluation

Adrian Bates	RICS Induction Coordinator	6/7/2016	Current and Future E-Learning Platforms
Jessica Austen	CBRE	6/9/2016	CBRE Presentation structure and delivery
Andrew Hancock	STEMNET	6/10/2016	Attended a STEM Ambassador Training session. Talked about the advantages of going through STEMNET

Along with these interviews we utilized school visits with students as well as surveys and a focus group with member volunteers of RICS. The survey was generated using the Qualtrics software and distributed out to ten member volunteers RICS was able to put us in contact with. Of those ten member volunteers the survey was distributed to, there were five respondents, making for a response rate of fifty percent. Though this did not offer a large pool for data collection, the results showed consistency in their answers. All of the respondents to the survey were well experienced and provided useful data in planning the deliverables and recommendations for RICS. The focus group consisted of two ambassadors and a member of the RICS Matrics division. This data collection method allowed us to attain an in depth perspective from ambassadors on how they believe training should be implemented.

4.1 General Training Needs

The data collected through these methods confirmed that the problem RICS perceived themselves as having was not isolated to their opinion. As shown in Figure 4, of the volunteers surveyed, the majority were older than thirty four, emphasizing the potential need for younger surveyors to become school ambassadors. Despite the average of the respondent's age, the majority of those surveyed had presented in schools on fewer than five occasions, as shown in Figure 5. Many of the volunteers and students that were involved in presentations were interested in having more engaging and informative presentations for students. Most presenters believed they were connecting well with students, as shown through our survey results in Figure 6. However, all agreed that more could be done in order to help them connect better with students

and promote RICS’s message. Every survey respondent showed interest in adding more interactive activities to the presentation materials. A quote from the survey, "Activities that demonstrate the multidisciplinary nature of surveying, construction and how people fit in.", shows the common theme that presenters feel more needs to be done to engage students in a way that will be educational and fun. As shown in Figure 7, slightly over half of the respondents of the survey did not agree that the current training was enough to give an effective presentation. Furthermore, the majority of volunteers thought that they had only been moderately effective at answering questions for students as shown in Figure 8.

Figure 4 Age Group Distribution of School Ambassador

What age range do you fall under?

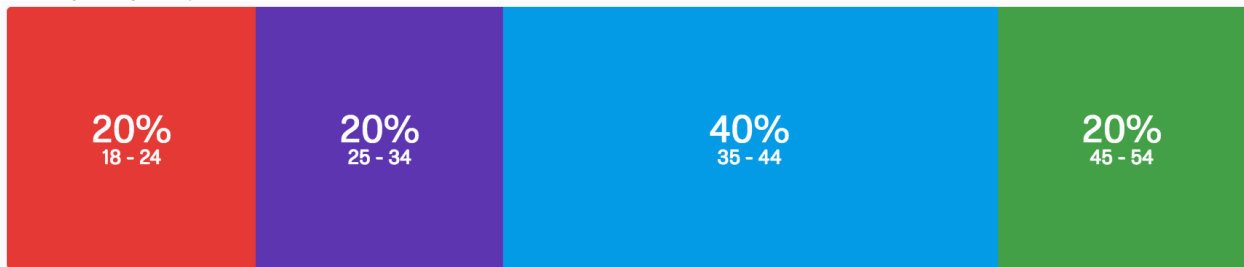


Figure 5 Times Presented of School Ambassadors

How many times have you presented?



Figure 6 Effectiveness of Student Engagement

How effectively do you feel you are engaging with students?

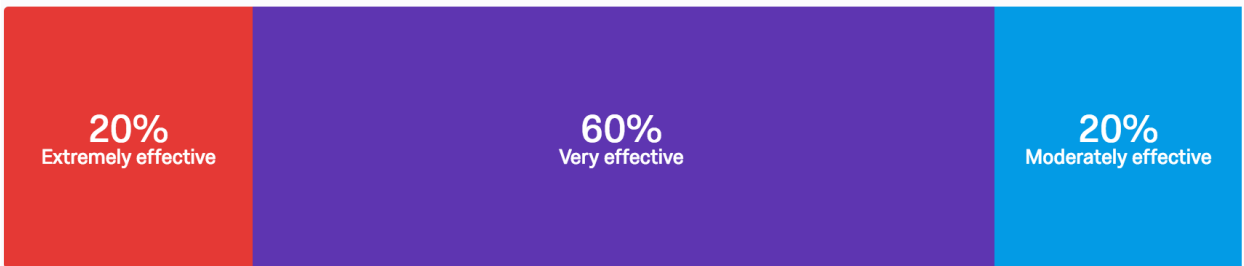


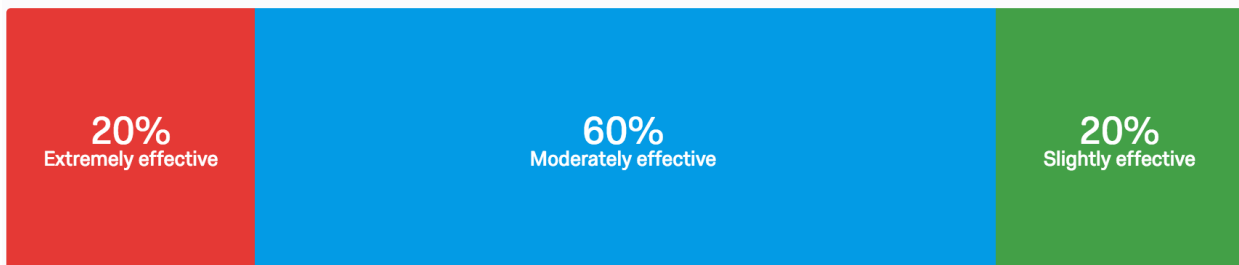
Figure 7 Effectiveness of Student Engagement

The presentation materials provided are enough to deliver an effective presentation.



Figure 8 Effectiveness at Answering Questions about other Surveying Disciplines

How effectively are you able to answer questions about other surveying disciplines?



The focus group echoed the sentiments of the survey and confirmed that ambassadors must be given more information to successfully inspire students. The key area that arose from the focus group was the need for general presentation skills in school ambassadors. The ambassadors felt that with more information on how to speak publicly and to capture the shorter attention spans of children, they would be able to motivate more people to think about becoming a surveyor. Interviews with Matrics volunteers determined that training needed to involve various aspects including training on child protection, arranging visits, and information to ensure the presentations give a consistent message to students about RICS and possible careers. Having an online media form that is capable of training and preparing volunteers in addition to any face-to-face training was an important aspect for RICS in order to efficiently use resources. In our interview with STEMNET, we found how they have structured their ambassador training both online and face-to-face, which has shown to be effective with three thousand ambassadors working in the UK to inspire children to pursue a career in STEM fields.

Another important perspective we sought to understand was that of the children receiving these presentations. Some of the common themes that have shown themselves through research visits to schools were that students would like to see a younger presenter and have more interaction with the ambassadors throughout the presentation. Students also wanted to understand why the ambassador chose to become a surveyor, as well as the route they took to become a chartered surveyor. Though it is not possible to change the age of the surveyors, there is potential to make the presentations both more engaging and personal through proper training.

4.2 Evaluation Needs

Interviews with stakeholders in Matrics also revealed the need to have consistent evaluations when ambassadors visit schools. The current evaluation provided to students after presentations gives no incentive for students to complete it. This has led to an ineffective form of determining what impact the presentation has had on the students. The focus group conducted found that the common consensus among the participants was that the current survey (See Appendix D) is too complicated and the format in which it is delivered is not useful as it does not engage or encourage students to complete it. Along with this problem, there are little to no metrics, such as class size and demographics, collected by the presenters, therefore, RICS is unaware of who they have reached or in what capacity.

Having an evaluation at the end of the presentation allows the audience to let the ambassador know how he or she performed. Interviews with RICS's Head of Member Involvement have indicated that having a shorter survey with some form of incentive to fill it out will receive more quality responses. Through our interview with Patricia King of Transport for London (TfL), the team saw how TfL ensures that their surveys receive quality responses. By making their survey into an interactive activity that seeks to answer specific questions, they gain feedback on their presentations while keeping the students interested. In addition, various other internal interviews suggested that metrics taken by ambassadors may be effective as it does not require audience members to fill out information and instead the volunteer. Having these metrics and evaluations for use by RICS would be integral in gaining comprehensive feedback on presentations.

4.3 Web Presence

In order to facilitate the various aspects of this project discussed, RICS has interest in developing a web presence, something they have struggled to implement both for training and student engagement. Due to the number of ambassadors all across the United Kingdom, it is not feasible for RICS to conduct face-to-face training to prepare all volunteers to give presentations. Therefore, we have determined the use of multimedia would be an effective way to reach a greater number of volunteers. The results of our survey stated that face-to-face training or an online training would be the most preferable forms of training for volunteers. Through interviews with organizations that have similar programs, it was found that all of these organizations agreed that an online training would be effective way to train volunteers in respect to both time constraints and resources.

Through our interview with the Head of Member Involvement at RICS, who is working to develop an induction for all RICS members, we determined more information as to a potential format for this training program. This format includes using short video segments with small quizzes and login data in a way that would allow RICS to keep proper metrics on who was trained and manage the presentation materials for member volunteers. Due to the fact that RICS is redeveloping its learning platform, it was then necessary to determine what was practical to implement. Through further interviews with Matrics members and RICS's Induction Coordinator it was determined that this format would be possible and easy to implement with the new software being developed. Using this platform would allow members to become certified and receive all of the materials necessary to present in schools, all in the same place online. Along with this, the issue was raised that RICS has had a difficult time updating members with changes to the program and logistical updates; an online format has the potential to help with this.

Another aspect that became evident in these interviews was the need for a better online resource to communicate with students to get them more involved. From the survey sent to member volunteers, it was determined that the majority of member volunteers believed having a web page of frequently asked questions to direct students to would be helpful as a presenting resource as shown in Figure 9. Changing this online presence would enable the materials being created by the marketing team to engage students and be more effective in educating them as

well as getting students involved in the future of surveying. As this is the primary goal of RICS, updating this aspect of their web presence is critical. The RICS Marketing division is currently working on a redesign of their careers website, which would be a great place to direct interested students to after the presentations.

Figure 9 Frequently Asked Questions

Would a webpage on the RICS website to direct students to be helpful if there is a question that you might not know how to answer properly?



5 Conclusions

Through careful analysis of the school visits, survey data, interviews and focus group we have conducted, we identified several key areas that are needed in order for RICS to have an effective training induction for its member volunteers. It is the conclusion of this project team that the following recommendations and deliverables will allow RICS to better prepare and support their volunteers with material to engage and inspire children.

5.1 Forms of Volunteer Training

With the goal of reaching current and new volunteers within the United Kingdom, this team has recognized the importance of utilizing a multifaceted approach to training. In the interest of ensuring that all school ambassadors are aware of their goal in presenting, as well as that they have an effective method of achieving said goal, all potential ambassadors will be required to complete this training program. Any surveyor who wishes to become an ambassador will have the opportunity to complete this training in one of two ways: through a short workshop conducted by RICS Matrics local group chairs and members, or through an online program that will utilize micro-learning techniques.

The face-to-face workshop contains eight modules detailing the purpose of the module and how it would be implemented in a classroom setting. An outline of the workshop can be found in Appendix F. The workshops should be conducted on a semi-regular basis to the extent that it can utilize Matrics resources to facilitate the training. The training should cover the basics of giving a presentation, working with students, child protection awareness, and giving a consistent message. Though a face-to-face training course will have the advantage of allowing trainees to practice what they have learned and receive direct feedback from experienced school ambassadors, face-to-face training will not always be possible due to resource constraints of RICS. Thus, an online training form is also required. The online training program will be conducted through the Adapt Learning software which is in the process of being licensed and developed by RICS. This ambassador training program will be incorporated into this new platform. This training will feature seven short, specialized videos covering specific topics

related to presenting in schools. A description of what each of these videos contain and a summary of the purpose of the video can be found in Appendix G. In order to compensate for the lack of direct feedback given in face-to-face training, this program will also feature short quizzes designed to ensure that the volunteers have been engaged by the training and have retained the information presented in the training videos.

It is the recommendation of this team that only after the training program has been completed can volunteers become registered as an official school ambassador with RICS Matrics. They will be given access to presentation materials, including a downloadable review handbook summarizing the training, and may begin representing RICS in schools. All of these materials should be available to the school ambassadors through the online platform which will allow each member access to the materials at any time. In order to ensure that, these ambassadors are properly updated by RICS, they will also be categorized as a registered volunteer within RICS. A system should also be developed that places these members on an email list of all RICS ambassadors, as well as ambassadors within their local member group. This will allow RICS to distribute important information among volunteers, as well as allow volunteers to form a local support network. Though we recognize RICS's desire not to email its members, in order to have consistency and fluidity in their message and make their training program effective, it will require RICS to remain in closer contact with members who have shown interest in being involved. This is a method that STEMNET has utilized extensively with great effectiveness in order to ensure that ambassadors are keeping track of training and the presentations that they give.

5.2 Training Program

5.2.1 Interacting with Schools

Within either training form, various information must be contained to ensure that regardless of the format the training is thorough and effective. An important aspect of the training we hope to instill in volunteers through this training program is how to interact with school administration in order to organize the logistical challenges of the presentation.

Scheduling a presentation with any school needs to be done in an official and specific capacity in order to meet individual school regulations and to protect children as well as the presenter from any potential legal issue. A major issue that is faced in facilitating this is that many school ambassadors go into schools because they have previously attended as students or their own children are attending. This leads to an unprofessional or casual nature of both the facilitation and delivery of the presentations. This causes presentations that do not give a consistent or correct message that RICS would like their ambassadors to express. Therefore, it is necessary to have every presentation given by ambassadors be facilitated through the school administration.

When preparing to give a presentation whether it be an assembly presentation, classroom presentation, or a career fair, setting up through the school administration is important. A major reason for doing this is to ensure that school policy regarding child protection is followed closely and precisely. It is important that the ambassadors are aware of the policies that schools have for presenters and that they strictly adhere to these requirements. This will be explained further in a later section, however, some schools may require ambassadors to have DBS (Disclosure and Barring Services) checks regardless of the lack of legal requirements. By adhering to these school regulations and being clear with the intentions of these presentations, ambassadors will ensure there will not be any issues regarding child protection during the presentation. Another reason as to why it is important to facilitate the presentation through school administration is to indicate clearly that the presenter requires a teacher to always be present in the same room during interactions with students. This aspect of child protection is important for any presenter as legally a teacher must be present when an interaction between the student and presenter are occurring. Having a teacher present also affects how the ambassador can deliver the presentation which will be covered more in-depth in the next section.

The rules and regulations of schools in the United Kingdom largely differ from one another as they are generally determined by each school's administration. This means that expectations for the presenter can vary at each individual school. Thus, it is important to go over the presentation with the administration as to give them the greatest chance of being able to present without conflict from administration or parents and present effectively.

5.2.2 Child Protection Adherence

Ensuring that ambassadors are aware of child protection laws and regulations must be covered in this training program to ensure the integrity of RICS and the ambassadors in these school visits. For the purpose of standard presentations, neither RICS nor government bodies require volunteers to complete a DBS (Disclosure and Barring Service) check. Legally, volunteers entering into schools are not required to complete any special requirements, provided that there is always a teacher accompanying the volunteer while interacting with children. It is, however, suggested that volunteers communicate with schools to determine that specific school's requirements, as some may ask for volunteers to complete a DBS check in order to present. If required, ambassadors may complete a DBS check through STEMNET training, which also offers additional advice on how to effectively present. Legally, the term "children" refers to all students under the age of eighteen, although these liability rules also apply to vulnerable people over the age of eighteen, should the volunteer be presenting in a university. Adhering to the guidelines and regulations set forth by the school body are important to ensuring a successful presentation and the awareness of these factors must be made clear to presenters in order to ensure ambassadors can volunteer without issue.

5.2.3 Structuring a Presentation

Once a school presentation has been facilitated through a school and all regulations have been adhered to, the structure of the presentation should be the main concern of the ambassador. To aid in this, presentation structure will be the main focus of the induction training. This portion of the training will work to create a consistent message across each presentation conducted by RICS ambassadors. Included in this deliverable are tips regarding how to make presentations interactive, adding a personal touch to their presentations that will help to engage students, as well as general information about successfully giving a presentation.

As described previously, presenters in this capacity should always be accompanied by a teacher when presenting. It is not the job of the presenter to reprimand children to be quiet if they are being noisy and not paying attention. This is the job of the teacher and will maintain the

presenter's status with the students as someone there to present, thus avoiding any hostility or ill feeling between the presenter and the students.

An important aspect in delivering the presentation is the enthusiasm of the presenter. If the member volunteer does not maintain a high energy level throughout the presentation, children will not remain interested. This is where presentation interactivity comes into effect. Encouraging students to ask questions and stimulating students with activities will make presentations more interesting, not only for the students but also the presenter. The interactive activities will help change the presentation from a tedious lecture on surveying to an effective means of introducing students to the world of surveying.

The overall goal of delivering presentations is to inspire young people to become surveyors. This can be accomplished in many different ways, allowing ambassadors a large degree of customization for structuring their presentations. Making the presentations interactive and personal go a long way towards achieving this goal. RICS is currently in the midst of a major marketing change that will, among other things, generate a new slideshow that will be better at drawing the attention of the children audience. This will give students a fresh perspective on surveying. This overhaul should serve to give presenters more resources to work with thus giving them more opportunity to engage students. Personal stories about the presenter will also help draw interest to the presentation and inspire students that are thinking about their own future. Therefore, we encourage ambassadors to edit and expand upon slides in the presentation to tailor it to themselves and their personal experiences. This method, used by CBRE and other ambassador programs, has the potential to make a more personal connection to students. While ambassadors should feel encouraged to describe how they personally became a surveyor, it is also important to make sure that their presentation covers multiple methods into the field. Should a student become interested in surveying, they should be aware that there is more than one method of entering the field, and the presentation should ultimately convey that message.

5.2.4 Presentation Interactivity

As mentioned previously, RICS's current presentation offers little to no interaction with the students. At its most engaging level, the presentation offers an activity in which it asks students to pair themselves with an interest and proceeds to give a potential path in surveying that might be of interest to them. To get the most out of their presentations, presenters need to ensure that their presentations are engaging to students and are as interactive as possible.

The Marketing Division at RICS are in the process of creating some potential activities that presenters could use to improve interactivity during the presentations. This training program will advise the ambassador on how to include an interactive component in their presentation. Utilizing one of these activities is not required, and volunteers are free to modify the sample activities, or to develop their own, but this training program will give ambassadors a starting point for their initial presentations.

Table 4 summarizes some of the materials currently being developed by RICS.

Table 4 Activities Currently Being Developed

Name of Activity	Brief Description
Custom Surveying Plotr	A quiz developed by RICS to determine the field of surveying that a student would prefer.
Fortune Teller Device	A folded paper game that gives people options to choose from and at the end will recommend a student to look more into a field of surveying based on their choices.
Simulation World	A simulation of a world that the audience becomes a surveyor can give them an initial experience about what is the life of a surveyor. Would utilize VR devices such as the Oculus Rift.
Giveaways	More for career fairs but having something to give out to students if they answer a question correctly or something along those lines. This would be a great way to get kids to the booth
Videos or Animation	This will show many different kinds of surveying jobs and might offer a clearer explanation of those fields than the ambassador. Can also pause the video and talk about it or insert interactive elements in between.

Some of these activities may be more appropriate for one form of presentation than another, and some may require specialized resources, but they will provide potential ideas should the need for an activity arise. As the school ambassador program continues, it is also the hope of this team that this resource will be continually added to as further activities are developed by either marketing or volunteers.

In order to supplement this list, school ambassadors should also be capable of developing their own activities. This training program includes a short exercise wherein participants are asked to generate their own activities. Through this exercise, this team hopes that ambassadors will gain the ability to develop these ideas, as well as possibly come up with an idea that they may be able use in their presentations.

5.3 Supporting Documents

5.3.1 Frequently Asked Questions

In order to further aid in presenters' ability to inform students, it is important to provide them with a number of support materials that will supplement their presentations. Typically, a surveyor will only specialize in one or two of the seventeen distinct fields within surveying. The nature of the surveying field makes it difficult to answer every question that a student may have, especially a student previously interested in surveying who has the potential to ask more in-depth questions. As such, it is important for ambassadors to be able to redirect students to a database that will be able to provide answers. Therefore, this team recommends that RICS generate a frequently asked questions database as they emerge from students. Though this team attempted to begin the formation of this database, a lack of survey data prevented its creation. In the event that an ambassador is asked a question they are unable to answer, the ambassador would be able to distribute a short link or QR code that will bring the student to said database. If the database does not contain the answer to a question that an ambassador has received multiple times, they are advised to contact Matrics, where they will be able to add the answer. This database should also provide the potential for students to post their question on a discussion board where it can be answered fully by a chartered surveyor. Having a database of frequently asked question will not

only help prepare an ambassador for the presentation but will also help them to avoid a potentially embarrassing moment during their presentation.

5.3.2 Review Handbook

It is the recommendation of this team that much of the information present in the training program also be condensed into a downloadable and printable review handbook. In some cases, an ambassador may be returning to presentations after a period of time and need to be refreshed on the materials and presentation style, or may be looking for a quick review on the trip to a school. Therefore, a printable handbook will allow the ambassador to access the training information anywhere, at any time. The handbook includes information about the presentation materials, as well as quick presentation and engagement tips. It should include a set of frequently asked questions at a future time.

5.4 Presentation Feedback & Evaluation

Feedback is the final area of these presentations that RICS must create consistency in to present effectively in schools. This team recognizes that no presentation will ever be perfect, and therefore it is necessary to continually improve the materials and induction course going into the future, which will require continuous feedback and information. It is the recommendation of this team that an evaluation include two major components: the collection of general metrics about the presentation and its audience from the ambassador, and the collection of a new evaluation from students.

Collecting data about the presentation will be done through the use of a quick form to be filled out by the volunteer, which can be found in Appendix I. Basic information, such as the ambassador's name, the date, and the name and location of the school will be filled prior to the presentation, and the ambassador will keep track of the number of students, their rough age range and gender split at the presentation's conclusion. Volunteers may also detail any issues that arose during the course of the presentation if they choose to. As an activity before the start of the presentation, volunteers can ask the students to raise their hands if they believe they know what surveying is. This should then be put into a percentage in the metrics form provided as a

deliverable. The ambassador will then use the same method to determine how many students are interested in surveying at the end of the presentation. This allows both the ambassador as well as RICS Matrics to determine the effect of each presentation through comparing awareness and interest at the beginning and the end of each ambassador visit. The collection of metrics serves an important purpose to RICS Matrics. By having ambassadors report numbers and ages of students, Matrics will gain a new understanding of the extent and activity of school ambassadors throughout the UK beyond what presentations Matrics staff have personally organized. It will also give Matrics an opportunity to analyze target demographics, and modify the training to address its needs and demographic changes.

School ambassadors will also be instructed to conduct a quick evaluation following each presentation. This is not always possible if the audience is large, or if the audience includes young children. However, with a small class size, it is highly recommended that students are offered the opportunity to give their feedback. The evaluation, shown in Figure 10, seeks to determine the impact the presentation has had on the students. This evaluation will be conducted with options for an online survey for students, or in the case that a student cannot access the internet, using a paper method. The ambassador is instructed to ask students to take out their phones, something many students will be happy to do, and either scan a QR code, or follow a short link, both of which will redirect students to an RICS website to fill out their answers.

It is entirely possible, however, that a student may not be allowed to have a phone in class, or may not be able to afford one that can access the internet. Furthermore, this can be a factor that could embarrass students who do not have phones and alienate them from surveying. Thus, it is important for the ambassador to offer a paper alternative in a non-judgmental way. Passing out papers to everyone will ensure the entire class is included in the survey. If students are not using a phone, the instructor will be required to read out the questions, which will serve to further engage students and make them more likely to fill out the survey.

In the case of a younger class, it is likely that few will have access to phones, and the open-ended nature of the survey may not be suitable for this age group. Instead, it is recommended that the ambassador make the evaluation into an interactive game, where students will be asked whether they enjoyed the presentation through an interactive poll. With young

children, this will have a much stronger effect on their interest in answering, and will help them remember the presentation in the future.

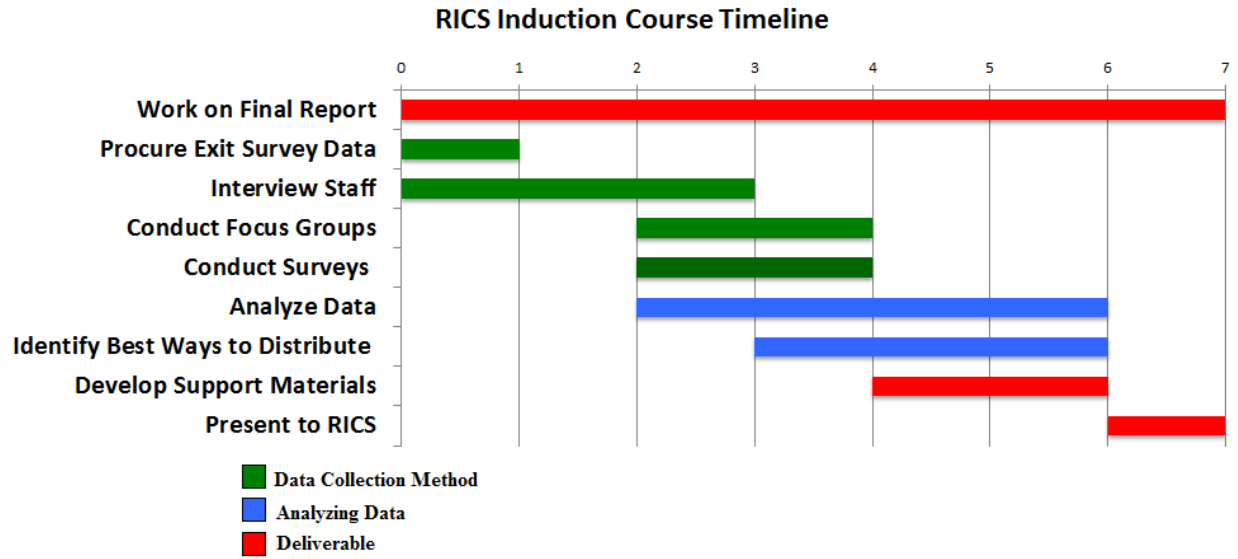
Figure 10 Survey for Students; from Appendix E

Choose the response that applies best.

	Excellent	Good	Ok	Poor
How would you rate the event?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How would you rate your knowledge of the surveying profession before the event?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How would you rate your knowledge of the surveying profession after the event?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How would you rate your knowledge of the apprenticeship route before the event?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How would you rate your knowledge of the apprenticeship route after the event?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix A

Timeline



Appendix B

Member Volunteer Survey

Q1 You are invited to participate in a voluntary survey sponsored by the Royal Institution of Chartered Surveyors. This survey is a part of a research project with the purpose of providing member volunteers consistent training for school presentations. This research will be published by Worcester Polytechnic Institute. This survey will take approximately 5 minutes. You are welcome to ask any questions during the course of the survey, and you are allowed at any time to skip a question or cease participation in the survey. The data collected will be used solely for research purposes, no personal information or individual results will be published. Thank you for your time.

Q2 What age range do you fall in?

- 18 - 24 (1)
- 25 - 34 (2)
- 35 - 44 (3)
- 45 - 54 (4)
- 55 - 64 (5)
- 65 - 74 (6)
- 75 - 84 (7)

Q3 How many times have you presented in schools?

- 1 (1)
- 2-4 (2)
- 5-7 (3)
- 8-10 (4)
- More than 10 (5)

Q4 What is your expertise in surveying?

Q5 How effectively do you feel you are engaging with students?

- Extremely effective (1)
- Very effective (2)
- Moderately effective (3)
- Slightly effective (4)
- Not effective at all (5)

Q6 How effectively are you able to answer questions about other surveying disciplines?

- Extremely effective (1)
- Very effective (2)
- Moderately effective (3)
- Slightly effective (4)
- Not effective at all (5)

Q7 Have you ever experienced a question from a student that you couldn't answer?

- Yes (1)
- No (2)

Q8 What do you do if you are unable to answer a student's question?

Q9 What kind of preparation materials would you have needed to answer the student's question?

Q10 Do you think it would be helpful to have access to a sheet of common student questions?

- Yes (1)
- Maybe (2)
- No (3)

Q11 Would a webpage on the RICS website to direct students to be helpful if there is a question that you might not know how to answer properly?

- Yes (1)
- Maybe (2)
- No (3)

Q12 Do you feel it would be useful for RICS to provide a set of interactive activities you could use in presentations to engage students?

- Yes (1)
- No (2)

Q13 Do you have any ideas for activities, if so please explain below?

Q14 The presentation materials provided to me are enough to deliver an effective presentation.

- Strongly agree (1)
- Somewhat agree (2)
- Neither agree nor disagree (3)
- Somewhat disagree (4)
- Strongly disagree (5)

Q15 What could better prepare you for these presentations?

Q16 Which form of delivery of the training do you feel is the most effective, i.e. videos, face to face training, written packets, etc.?

Q17 Would you be interested in attending a focus group for further questions?

- Yes (1)
- No (2)

Q18 What email address should we contact you with for further information?

Appendix C

RICS Member Volunteer Focus Group Questions

1. Where in the UK are you currently volunteering?
2. How long have you been a volunteer for RICS?
3. About how many times have you presented in schools?
4. What is your expertise in surveying?
5. What inspired you to become a surveyor?
6. Why did you choose to become a volunteer?
7. How effectively do you feel you are engaging with students?
8. How effectively are you able to answer questions about other surveying disciplines?
9. What do you do if you are unable to answer a student's question?
10. What interactive components do you utilize in your presentation, e.g. games?
11. Do you find yourself lacking any presentation materials that you believe would be helpful?
12. In your opinion, what is the best way to inspire students to become surveyors?

Appendix D

RICS Exit Survey to Schoolchildren

RICS – ‘Raising the profile of Surveying’ Student Feedback

Name:	
Name of school/college:	
Please name one <u>positive</u> aspect of the presentation:	
Please name one <u>negative</u> aspect of the presentation:	
Which aspects of the presentation could have been improved?	
What are you currently studying: GCSE's / A Levels/ Highers/ BTEC / NVQ / HND / HNC	
Will you be applying for a University Course? If so, do you know which one you intend to apply for?	
Who do you think helps to influence your career choices? Parents, teachers, friends, careers advisers etc.	
Construction sector of Interest: (Building surveying, Quantity Surveying, Project Management, Health & Safety)	
Would you prefer part time or full time study?	
Any further comments?	

Appendix E

RICS Evaluation Form

Q1 Choose the response that applies best.

	Excellent	Good	Ok	Poor
How would you rate the event?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How would you rate your knowledge of the surveying profession before the event?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How would you rate your knowledge of the surveying profession after the event?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How would you rate your knowledge of the apprenticeship route before the event?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How would you rate your knowledge of the apprenticeship route after the event?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Q2 Choose the response that applies best.

	Yes	No
Would you have considered an apprenticeship before today?	<input type="radio"/>	<input type="radio"/>
Will you consider an apprenticeship after today?	<input type="radio"/>	<input type="radio"/>

Q3 Anything you particularly liked about the event? Disliked?

Q4 Do you have any comments or concerns?

Appendix F

Workshop Course Outline

The structure of this workshop will be similar to that of the STEMNET's STEM Ambassador training program. Using the Review Handbook provided by this project group all aspects of the presentation material must be discussed in order to ensure that volunteers are properly prepared to present. The following modules will help presenters better understand their role when giving presentations and will work to help them to put themselves in the perspective of the students and school administration in order to help them work with these parties to give successful presentations.

Module 1: Introduction

Purpose:

The purpose of this module is to introduce both the program that the attendees will go through as well as to introduce each other to the group.

Facilitation:

Each person in the workshop should introduce themselves with their name, what areas of surveying they work in, and why they want to become a School Ambassador. This will serve to create the common theme for the workshop as to why volunteers are interested in becoming ambassadors. The instructor for this course should use the themes that arise to demonstrate what RICS is trying to do through these presentations, showing the presenters what message RICS is trying to convey.

Module 2: The Student Perspective

Purpose:

To demonstrate the common stereotypes and preconceptions that students may have towards professionals coming to present

Facilitation:

The instructor should provide paper and markers allowing groups of three through five to create a drawing of how they believe students perceive various types of professionals in the workforce. From there the instructor will allow each group to present what they have come up with for the type of professional that they were assigned. After this activity, the instructor should ask the group what they believe are the common stereotypes students might have for surveyors. The instructor should then summarize the common themes.

Module 3: Preventing Stereotypes and Engaging Students

Purpose:

Allow volunteers to collaborate on ways of preventing stereotypes and engaging students despite these stereotypes, working to break down these barriers.

Facilitation:

The instructor should simply ask the group of ways that they believe they could work to engage students and prevent stereotypes from affecting their presentation. These regularly would involve methods of making the presentations more personal, using engaging activities, asking students questions, creating open discussion.

Module 4: Presentation Tips

Purpose:

To enable presenters to have better delivery in their presentations.

Facilitation:

Following the group discussion on engaging tactics, it will be important to reinforce the volunteers how the body language and public speaking skills of the presenter will be important to how well the presentation is received and how thoroughly students are engaged in the way the presentation is facilitated. The instructor not only should speak to these points but should emulate these points through how they are presenting in the delivery of this, pointing out the key features that are allowing he/she to capture the attention of their audience. These include announcement, posture, eye contact, body language, such as hand gestures, etc.

Module 5: Activity Creation and Presentation Materials

Purpose:

To present volunteers with the potential materials and activity ideas they can use to engage students.

Facilitation:

The first part of this should include a small activity in which small groups are created. Each group should then work to create a short activity that they could facilitate in a school presentation to introduce students to surveying in an engaging way. It allows volunteers to build confidence in their ability to both think quickly and engage students effectively as well as gives volunteers multiple ideas for activities. Each group should present their activity to the workshop.

Following this the instructor should make the volunteers aware of the materials available to them through marketing that will allow them to engage students, having examples of the materials and showing how they can be used to engage students. Stepping through the

PowerPoint presentation and showing the potential available to presenters to change the PowerPoint in a way that will allow them to add a personal touch to the presentation.

Module 6: Presentation Logistics

Purpose:

Demonstrating to presenters the proper way to facilitate a presentation through the school administration

Facilitation:

In this module, it is important for the volunteers to understand the proper way to schedule a presentation in a way that complies with the rules and regulations of the school. Presenters should be made aware that presentations must be scheduled through school administration. This ensures that all parties are aware of what is happening and that all students are in a safe environment, this protects both the students and the presenter from any legal trouble. This also allows RICS to build long-term partnerships with each school, helping to expand the school ambassador program.

When presenters are at a school for a presentation, the primary contact at each school will be a classroom teacher. Before the presentation, it is important that the ambassador discusses the details of the class with this teacher. They will be able to answer any questions about the logistics of the presentation such as class size, age range, and whether any students have already taken an interest in surveying. The ambassador will also be able to communicate any specific needs that they will have. If they are willing to take the time to keep good communication with them, the teacher should be willing to focus on any logistical challenges, allowing them to focus on giving a good presentation.

When it comes to the presentation itself, the ambassador is there to focus on informing and engaging students. Any disciplinary issues that arise should be addressed by the teacher. The instructor should work to make it clear to the presenters that maintaining distance from disciplinary issues by using the teacher for such situations maintains a better relationship with the students and ensures the presentation materials are well received.

Module 7: Child Protection

Purpose:

To convey to presenters the importance of child protection laws and the requirements they must meet to present in schools.

Facilitation:

In this portion, the instructor must convey the importance of following all regulations and laws set forth by both the United Kingdom and the school in question. Most importantly, all presenters must be made aware that at any time in which there is an interaction between the

presenter and a student there must be a teacher present legally. This should emphasize the importance of facilitating the presentation properly so that a teacher can be in attendance.

Presenters must also be made aware that if at any time there is a concern for a student's safety from something that is said that information should be conveyed to the school administration so the issue can be handled officially through the school. All presenters are responsible for themselves and only themselves they are not expected to have the knowledge or training to handle issues involving students and are not expected nor should they intervene in a scenario, their responsibility is to their own safety.

The issue of DBS checks is something that is often a concern for presenters entering school make presenters aware that there is no law requiring them to have DBS checks to give these presentations. However, some schools may have rules in place requiring that the presenter has a check. In this case, an uncertified presenter will be unable to volunteer at this school. DBS checks are available through STEMNET Ambassador Training program and are encouraged to become certified, but they are not required to do so by law.

Module 8: Registration Process

Concluding this workshop should be the information about formally registering as an ambassador. Though a system for this does not exist yet, this will be critical to updating ambassadors on school visits, changes to materials and other logistical information. It is recommended that this registration process be done through an online which then allows the presenter to access all of the materials talked about in this workshop as well as incorporates an email alias service which allows all of the presenters regionally or as a whole to be updated properly on matters concerning them

Appendix G

Online Course Outline

In order to construct these videos, a consistent format must be created that illustrates the message that is trying to be presented. It is the recommendation of this project team that this format for presenting this info should consist of a narrator with various text is displayed in the videos. Having small animations all carrying a consistent theme in order to engage the audience and give a visual representation to be engaging.

Video 1: Introduction: Why Volunteer?

Synopsis:

A short introduction asking the viewer to look at why they chose to become a volunteer.

Content:

People choose to volunteer in schools for many different reasons. Becoming a school ambassador can be a very rewarding experience, as it allows you a chance to give back the knowledge that you have gained on your path to becoming a surveyor. As an introduction to this training course, think about why you became a surveyor, and what you wish you would have known if you were in the position your students are currently in. The students in your audience could become the next generation of surveyors, placing you in the unique position to really make a difference.

Your presentation should be about the students, but what the students will be most interested in is you. The most successful presentations are unique to the person giving them. Make sure that you tie in your own experiences and knowledge to the message you are trying to give: why the students should become a surveyor.

Video 2: Interacting with Schools and Teachers

Synopsis:

This video covers tips on how to communicate with schools to organize a visit, as well as your role in the classroom.

Content:

The school ambassador program is about inspiring a new generation of surveyors. While this can be accomplished through single, unofficial school visits, sometimes that's just not enough. To really make the most of our ambassadors' work and continue using their skill well into the future, RICS needs to be actively building relationships with schools across the country. Regardless of whether or not you plan to return to a school in the future, other volunteers representing RICS may choose to. Therefore, it is important that our ambassadors help us build these contacts by making your visits as transparent and official as possible.

In the majority of classroom or after-school presentations, your primary contact at each school will be a classroom teacher. Before your presentation, it is important that you discuss the details of the class with this teacher. They will be able to answer any questions about the logistics of the presentation such as class size, age range, and whether any students have already taken an interest in surveying. You will also be able to communicate any specific needs that you will have. If you are willing to take the time to keep good communication with them, the teacher should be willing to focus on any logistical challenges, allowing you to focus on giving a good presentation.

When it comes to the presentation itself, remember that you are there to present your story. You are not there to force the students to pay attention or discipline them for disruptions. All disciplinary measures should solely be the teacher's sole responsibility.

Video 3: How to Deliver a Successful Presentation

Synopsis:

This video delivers hints and basic techniques for the presentation along with an introduction of children's behavior.

Content:

Knowing the material as much as possible will make the presenter more confident in their abilities. Rehearsing the slides and knowing what could go wrong during the presentation will allow the presenter to be graceful during the presentation. It is important to get across the point of the presentation right as you start talking.

The ultimate goal of the presentation is to convince the audience that the message is important to them. In order to convey this, the audience needs to trust, respect, and in some way relate to the speaker. A major component in trust is the visible confidence of the speaker, which is affected both by how well they know the material, but also by the speaker's mannerisms. Aspects such as the speaker's facial expressions, posture, physical gestures, and eye contact, as well as their overall speaking pace will all play into the audience's reception of the message.

Video 4: Material to Know for Your Presentation

Synopsis:

This video covers material that the presenters need to know for the power point. Will be broken up into a couple of parts.

Content:

It is important that when traveling into schools, you are equipped to answer questions not just related to your field of surveying. This video will provide a quick rundown of each branch of surveying as a refresher, should you find that a student takes a particular interest in one. This video will also cover the multitude of ways that a student can become a surveyor, including the newer apprenticeship methods. These are especially important for older groups of students who may not be far away from deciding to become a surveyor. If a student is interested in becoming a surveyor, it is important that they are made aware of every route into the profession, not just the one that they ambassador chose.

In addition, this video will cover additional details regarding each slide of the presentation provided to you.

Video 5: Child Protection Laws

Synopsis:

This video covers the child protection laws and how they apply to the school ambassador.

Content:

A Disclosure and Barring Service check (a DBS check) is a criminal background check used to clear applicants for working with children within many different fields. While a few ambassador programs may require that a potential ambassador successfully completes a DBS check, this is not a requirement for volunteering with RICS. Legally, volunteers are allowed to travel into schools without a completed check provided they are escorted by a teacher or faculty member at all times, and are never left alone with children. As a school ambassador with RICS, teachers can be a very valuable resource, and in many cases, the ambassador will not wish to leave their side during a visit regardless of whether they are cleared by a DBS check.

However, while RICS does not require its ambassadors to submit an application for a check, some individual schools may feel more comfortable with a volunteer who has one completed, and some may have a complete ban on outside volunteers without DBS clearing. For this reason, it is recommended that you contact the school before your presentation to determine their precise requirements. If you wish to volunteer at a school that requires a DBS check, one of the best methods for receiving one is to complete the STEMNET ambassador training program. This program is a two hour workshop which includes a free DBS check. In addition, it will also help you further develop your own presentation ideas. A DBS check may take up to several weeks, so make sure to plan your visits well in advance.

Regardless of your DBS status, there are some additional guidelines it is recommended that you follow for both the safety of you and the students. Most importantly, when working in a school or university, these guidelines will apply to all students under the age of 18, as well as any

vulnerable adults that you may work with. It is important to make sure that you respect the personal space of students, both in person and online. If a student wishes to contact you, all communication should go through the teacher, and it is strongly recommended that you avoid giving your email address to students. You should also avoid any social media contact with students, and if they decide to message you online, you should not contact them in return. These measures may sound harsh, but it is entirely for the safety of both parties to limit communications to open and monitored channels, such as through an instructor. Lastly, if you wish to take photos or video of your presentation, it is necessary to check with the school first, as some may have regulations against this.

Video 6: How to Run Interactive Activities & Choosing the Right Activities

Synopsis:

This video gives some ideas of interactive activity as examples to the presenter to use in their presentation.

Content:

This video is intended to give descriptions of the activities currently being developed by RICS. It will also give participants the opportunity to develop their own activities, keeping in mind that they will need to be short, engaging for children, and may be conducted without requiring a large number of additional resources.

Video 7: Getting Information from Your Presentations: Evaluations and Metrics

Synopsis:

This video covers how to conduct a post-presentation evaluation.

Content:

As you conduct your presentations, it's very important that we are able to examine the effect that these visits are having on students, and how to improve so that they can have an even greater effect in the future. Therefore, we are asking you to keep track of a few very basic statistics throughout the presentation. Upon completion of this course, you will be given a printable records sheet to fill out basic information including your name, the date and location of your school visit, and a brief overview of the demographics of your audience. This sheet will also ask you to have the students raise their hands to gauge the knowledge of surveying in the room before you start, and the interest in surveying upon the conclusion of the presentation.

Then, following the presentation, simply record the approximate number of raised hands and submit the sheet to RICS whenever you have a chance.

Additionally, we would like you to present an optional survey to students to fill out at the conclusion of the presentation. This survey may be offered to students in a variety of ways. For classrooms that allow students to keep their phones on them, a QR code and hyperlink will be provided. These will take the students to the RICS student portal, where they will have access to a short online survey, as well as a number of resources and answers to frequently asked questions. In addition, the survey should be offered in a paper version, or through a more interactive medium. One suggestion is to line a table with cups and have students drop chips into a cup on their way out the door as a method of choosing an answer to each question. This activity could also be accompanied with a small prize as a thank you for participated. However, this is only a suggestion, and as long as every student has the opportunity to provide their input, we leave it to you to determine how you'd like conduct this survey.

Appendix H

Review Handbook

What Do I Need To Know?

Do You Know Your Surveyors?

In order to properly respond to student's queries about surveying fields other than the one you are in, it is important to have a working knowledge of the other surveying disciplines. The table below lists all 17 variations of surveying RICS recognizes, along with a brief description of the field.

Land	
Environment	Assessing the environmental effect on land and construction.
Geomatics	Mapping and analyzing land and seabed.
Minerals and waste management	Assessing potential value of mining site. Managing waste and disposal.
Planning and development	Assessing how a building will impact the society.
Rural	Consulting landowner on land uses change and assessing its potential values.

Property	
Commercial property	Negotiating between landlord and tenant on real estate trading and leasing, and giving advice on investment.
Residential property	Negotiating between landlord and tenant on real estate trading and leasing, and giving advice on investment.
Valuation	Assessing value of property.
Facilities management	Managing health and safety services for business and also managing property and facilities service.
Dispute resolution	Resolving disputes on lease and purchase contracts, property boundaries and also giving advice to avoid dispute.
Machinery and business assets	Valuing and selling machines, equipment, and other assets of business.
Management consultancy	Providing advices on real estate development plan, leising strategy with local authority, production issues and so on.
Arts and antiques	Advising value on artifacts, also method on protection and sales.
Construction	
Quantity surveying and construction	Calculating the quantity of material is need in a project and its cost.

Project management	Coordinating all processes for maximizing construction speed and minimizing the cost.
Building surveying	Providing professional advice on building construction.
Building control	Advising on sound insulation, fire protection, issues on environment and other building regulations.

This table is produced according to the information on RICS's website. For more information, please visit <http://www.rics.org/uk/the-profession/the-work-of-our-members/>

A Review of Your Presentation

Since new slides are in development, there is not much that we can say about what the ambassadors need to know for which slide. This will be up to RICS to update this section of the training when the new presentation is finished.

Children Protection Guide

These guidelines will apply to all students under the age of 18, as well as any vulnerable adults that you may work with. It is important to make sure that you respect the personal space of students, both in person and online. If a student wishes to contact you, all communication should go through the teacher, and it is strongly recommended that you avoid giving your personal or work email address to students. You should also avoid any social media contact with students, and if they decide to message you online, you should not contact them in return. These measures may sound harsh, but it is entirely for the safety of both parties to limit communications to open and monitored channels, such as through an instructor. Lastly, if you wish to take photos or video of your presentation, it is necessary to check with the school first, as some may have regulations against this.

Do I Need a DBS Check?

A Disclosure and Barring Service check (a DBS check) is a criminal background check used to clear applicants for working with children within many different fields. While a few ambassador programs may require that a potential ambassador successfully completes a DBS check, this is not a requirement for you to volunteer with RICS. Legally, volunteers are allowed to travel into schools without a completed check provided. They are escorted by a teacher or faculty member at all times, and are never left alone with children. As a school ambassador with RICS, teachers can be a very valuable resource. In many cases, you will not wish to leave their side during a visit regardless of whether you are cleared by a DBS check.

However, while RICS does not require you to submit an application for a check, some individual schools may feel more comfortable with a volunteer who has one completed, and some may have a complete ban on outside volunteers without DBS clearing. For this reason, it is recommended that you contact the school before your presentation to determine their precise requirements. If you wish to volunteer at a school that requires a DBS check, one of the best methods for receiving one is to complete the STEMNET ambassador training program. This program is a two-hour workshop which includes a free DBS check. In addition, it will also help you further develop your own presentation ideas. A DBS check may take up to several weeks, so make sure to plan your visits well in advance.

Student Behavior

Unconscious bias happens fairly frequently. It “happens by our brains making incredibly quick judgments and assessments of people and situations without us realizing.” (Equality Challenge, 2016) It is necessary to realize some unconscious bias can diminish one’s interest in learning. For example, it is a fact that girls are less likely to be interested in becoming a surveyor, so in order to ensure they feel relevant as audience members, make sure your presentation is not biased to a male audience. If there is a female audience that wants to learn more about surveying and notices that she is not getting equal attention or opportunity from you, she may completely lose her interest on the topic.

Always ask a teacher for assistance if you feel it is hard to control the atmosphere in the classroom. When it comes to the presentation itself, remember that you are there to present your story. You are not there to force the students to pay attention or discipline them for disruptions. All disciplinary measures should be the teacher’s sole responsibility.

Presentation Tips

A major component of trust is the visible confidence of the speaker, which is affected both by how well they know the material, but also by the speaker's mannerisms. Aspects such as the speaker's facial expressions, posture, physical gestures, and eye contact, as well as their overall speaking pace will all play into the audience's reception of the message.

It is important to include your own stories in your presentation. It will make the presentation less like a dry lecture but a vivid storytelling. You can include your most exciting project that you have participated in, or a story about what inspired you to be what you are. To bring some photos to the presentation will greatly enhance your story. More importantly, make sure you let your audience know what your daily life as a surveyor is, and why you are proud of it.

Frequently Asked Questions

This section will serve to act as a reference sheet for the ambassadors to make sure they are up to date on the common questions asked by students. This will help prepare the ambassadors avoid potentially awkward situations by allowing them to answer it themselves or direct the student to the RICS website and go to the FAQ. Also, if there was a question that was not in either this section or on the website, the ambassador is able to add it to the website if he/she sees fit.

Since we do not have information on the frequently asked questions, this will also be up to RICS to update.

[Recommendation for future development]

A link direct to a forum on RICS induction training portal should be provided here.

The forum allows volunteer to share the questions that they are commonly being asked or other difficulties during their presentation among all volunteers.

An email alias to maintain better contact with member volunteers and update them on any changes RICS makes

Appendix I

Metrics Form

Name: _____
City: _____

Date: _____
School Name: _____

Please print out and bring this sheet to your next presentation. This information will be used to record your presentations, and the overall effect of the school ambassador program. Upon completion of this presentation, please enter the information on this sheet into the ambassador portal.

Please circle the category of event

School Assembly

Classroom Presentation

Career Fair

After School Presentation Other: _____

Please tally the number of students in your audience:

--

Total number of students: _____
(Please provide an estimate if not exact)

What is the average age of students in your audience? _____

What is the approximate gender split of your audience? _____

Please collect this information at the beginning and end of each session. These can be asked verbally to the students, and the answer based on the number of hands raised.

Approximately what percent of students have heard of surveying? _____

Approximately what percent of students know what surveyors do? _____

Approximately what percent of students have thought about becoming a surveyor?

Before: _____

After: _____

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