

## **International collaboration experience: Using multi-country student collaboration projects to enhance learning and faculty research**

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### **Abstract:**

In this chapter, we discuss our experiences with the X-Culture project. X-Culture is a large-scale international student collaboration project designed to enhance learning in international business (IB) and related courses through participative learning and first-hand cross-cultural interaction and collaboration. Our experience suggests there are numerous positive outcomes associated with international collaboration experience (ICE) projects, and they extend far beyond merely learning to use online communication tools. Furthermore, our data show many benefits for the students and professors from participating in the X-Culture project. The project has proven to be an excellent research platform on team dynamics and cross-cultural interactions. In addition, we will discuss the challenges of and recommend best practices for using ICEs.

**Keywords:** large-scale international class projects | international collaboration

### **Book chapter:**

Studying international business (IB) solely in a classroom is like learning to ride a bicycle on a stationary bike. The instructor may provide detailed instructions on how to use the equipment, and the stationary bike may have the latest technological equipment. However, you cannot learn to ride a bicycle until you practice riding on the road, struggle with turns, bumps, and the wind and maybe even fall off the bike a few times. Likewise, students need to actively experience a more realistic IB environment to understand the challenges of the global workplace. Unfortunately, international experiences requiring travel may be prohibitively expensive or unrealistic due to time and course schedule constraints. However, multi-country student collaboration projects may be a viable option to provide students with practical global experience and enhance learning in IB courses.

Educators and businesspeople have long recognized the value of reinforcing theoretical concepts through practical, real-world experiences. Business schools provide practical experiences in a variety of ways, such as writing business plans, developing social media marketing campaigns, using simulation games to manage a diversified investment portfolio, and incorporating

entrepreneurial projects into business courses. These experiences allow business students to apply their knowledge to situations they will encounter when they enter the working world.

According to Kolb (1984), experiential learning is a “holistic integrative perspective on learning that combines experience, cognition, and behavior” (p. 21). It means turning experience into learning (Boud et al. 1985). Experiential learning is not a new concept. It can be traced back to ancient times and it likely appeared long before the conventional classroom-based model developed. As far back as 500 B.C., Confucius is believed to have said, “Tell me and I’ll forget; show me and I may remember; involve me and I’ll understand.”

Modern experiential learning theories take root in the early nineteenth century based on the work of leading theorists of human learning and development. Empirical support for the effectiveness of experiential learning is ample. Numerous studies tested experiential learning theory in IB education and present evidence of the positive effects of the experiential approach on learning outcomes, including in IB education.

Designing an experiential project for an IB course is challenging because, by definition, the project requires an international context. Unfortunately, finding international partners and coordinating geographically dispersed teams presents several major challenges. It would be easier to simulate a cross-cultural environment in classes with a large percentage of international students. However, this does not give students a complete international experience. Many international students are acculturated and act similarly to domestic students. In addition, it is impossible to simulate time zone differences and international communication hurdles in a regular classroom.

In this chapter, we discuss our experiences with the X-Culture project. X-Culture is a large-scale international student collaboration project designed to enhance learning in IB and related courses through participative learning and first-hand cross-cultural interaction and collaboration. Our experience suggests there are numerous positive outcomes associated with international collaboration experience (ICE) projects and they extend far beyond merely learning to use online communication tools. Furthermore, our data show many benefits for the students and professors from participating in the X-Culture project. The project has proven to be an excellent research platform on team dynamics and cross-cultural interactions. In addition, we will discuss the challenges of and recommend best practices for using ICEs.

### **A Brief History of the X-Culture Project**

The X-Culture project was launched in 2010. It was designed to allow IB students to gain practical experience by working in a global virtual team (GVT) with international students in similar courses. The teams are comprised of five to eight students from different universities and countries. The teams develop a business proposal for a multinational company. The students communicate using the latest online collaboration tools and social media, such as e-mail, Skype, Dropbox, Google Docs, Facebook, Doodle, and others. The project term is 6–9 weeks. Rich multisource, multilevel data are collected throughout the project to document individual and team performance and experiences for grading and research purposes. Participation in the project

is free; however, students must meet a number of requirements, such as the ability to communicate in English and have regular access to the internet.

Professors are typically recruited through the Academy of Management (AOM), Academy of International Business (AIB), and other professional associations. Personal contacts and targeted invitations are used to attract participants from underrepresented countries.

In the first season of X-Culture, 436 students from seven countries participated in the project. Over the past 2 years, the project has grown considerably. In spring 2013, there were 2,328 students enrolled at 86 universities in 43 countries located on six continents. Both Master's level and undergraduate business students participate in the X-Culture project with undergraduates comprising 70 % of the population.

### **Why Use Multi-country Student Collaboration Projects?**

#### Enhanced Learning

Practical cross-cultural experience is the main reason to include ICE projects in IB courses. Interacting with people from other countries and working together toward a common goal improves cross-cultural communication and understanding, information management, and online communication skills, as well as, for many students, English communication skills.

In addition to learning by applying the theories and concepts learned in class to a real-world situation, students also learn from one another while working in international teams with their peers. The exposure to people from diverse backgrounds and experiences increases the variety and quality of ideas being exchanged among the team members, which enhances their creativity and learning (Larruson and Alterman 2009).

Although the participants are college students, the challenges they are dealing with are very real, whether it is the difficulties of communicating and finding common ground with people from different cultures or collaborating across time zones. The practical experiences provide a preview of the challenges students will face in the workplace and help to form more accurate expectations, recognize gaps in their knowledge and skills, and identify areas for improvement. Additionally, through these practical experiences, students are able to improve their ability to assess the knowledge and skills needed to complete large, complex X-Culture-like projects as well as show signs of improvement in self-efficacy (Ertmer et al. 2011).

Analysis of the data collected as a part of the X-Culture project reveals student learning in several areas. First, a comparison of the students' pre-project and post-project cultural intelligence test scores shows a significant improvement. Second, the results provide support for the long-accepted intergroup contact theory (Allport 1954) that postulates that interaction with people from other cultures reduces prejudice and stereotypes. Pre- and post-project measures of perceptions of interethnic differences significantly decrease over the weeks the students work together, and the reduced prejudice has been observed for both the cultures that were represented on the team and those that were not. The results suggest that a global interaction experience increases cross-cultural tolerance in general and not only toward the cultures involved in the

activity. At the same time, self-efficacy has been shown to increase as post-project surveys reveal that students find international collaborations less challenging after the project than what they report before the project starts. In addition, post-survey comments by students indicate they have a better understanding of the traits required for effective teamwork in a cross-cultural context. Finally, the student and professor feedback and observation data strongly suggest enhanced learning, particularly with respect to new practical skill and knowledge acquisition. Experimental studies on student satisfaction show that X-Culture students report significantly higher satisfaction across all dimensions of course evaluation compared to control groups of students in course sections that used alternative team-based assignments, and the effect is consistent for undergraduate and graduate students and across the different countries in which the experiments were conducted (for a complete assessment of the learning outcomes, see Taras et al. 2012).

The benefits of ICE extend beyond student learning. The X-Culture experience shows that multi-country collaborative projects provide an excellent platform for enhancing faculty research and for professional, personal, and interinstitutional networking.

#### Research Foundation

Multi-country collaboration exercises present an opportunity to conduct high-quality research on GVTs and related topics. The data are suitable for addressing questions related to teamwork, human interaction, management, entrepreneurship, marketing, and many other research topics. The large number of people working together for an extended period of time provides ample opportunities to observe iterations and team member experiences in a variety of settings and under various conditions. Most of the performance monitoring and evaluation is required for course grade purposes. Student surveys and project records provide even richer data for research purposes.

Online data collection and performance-monitoring tools allow for collecting data, even though the respondents are scattered around the world. If required, experiments may be incorporated in the project. However, normal variation in team composition, communication mode, and team dynamics allows for “natural” experiments that test the effects of these factors and conditions on team processes and outcomes.

Most importantly, the data collected and analyzed by researchers, to publish papers, are shared with students to enhance their learning. Furthermore, a large group of international researchers provides the brainpower required to analyze data and write papers. With proper organization and coordination, extensive and intensive research can be conducted without the need for significant research grant money. Furthermore, the variety of backgrounds of the participating instructors aid creativity and innovation (Jackson 1992; Nemiro 2002; Watson et al. 1993).

#### InterPersonal and InterInstitutional Collaboration

Bringing together researchers, educators, and students interested in IB and related disciplines, ICE projects provide a wonderful opportunity for interpersonal and interinstitutional collaboration, both for the students and for the instructors. Based on their experiences, we have

seen the following positive results: (1) Students continue to communicate with their teammates long after the project is completed, and some teams meet face to face; (2) X-Culture instructors collaborate on research projects; (3) institutions consider signing student exchange agreements and collaborating with other university projects; (4) students consider applying to graduate programs at schools they learned about through X-Culture; (5) students express an interest in getting involved with X-Culture research projects; and (6) several teams, primarily MBA students, plan to continue developing their business proposals and may commercialize their product.

It is too early to predict what will happen, but we certainly see an opportunity for professional and career collaboration among X-Culture participants. Furthermore, the X-Culture project is an opportunity to strengthen a student's resume. We have received numerous reports from students saying their X-Culture experiences have helped them in job interviews, internships, and ultimately, acquiring a job.

### **Challenges and Best Practices of ICE Projects**

#### **Challenge 1: Project Coordination**

The most acute challenge in developing a multi-country collaboration project is coordination. Experience shows that in order to run smoothly, an ICE project needs a central coordinator who manages recruitment, document distribution, data collection, communication, workload distribution, and other everyday tasks. The person must be able to devote significant time to the project. Patience and cultural sensitivity are helpful traits as the job will inevitably involve dealing with student and instructor complaints and mediating conflicts. Ideally, the project coordinator will teach a related course and their class will participate in the ICE project. In addition, the project coordinator needs the support of his/her university and adequate resources (e.g., graduate assistants) to manage this type of large-scale, complex project.

#### **Challenge 2: Recruiting and Selecting Partner Universities**

Finding reliable partners for an ICE project presents several challenges. First, there must be a way to inform potentially interested partners, both foreign and domestic, about the project. Even though IB courses are taught at most business schools, to make it possible for students from different universities to work together, several conditions must be met: (1) The course content must accommodate this type of project, (2) the university term schedule must overlap significantly to enable collaboration, and (3) all students must be able to communicate, written and orally, in one common language.

The expansion of the membership of professional associations, such as the AOM, AIB, or Society of Industrial/Organizational Psychology (SIOP), to dozens of countries around the world makes it much easier to reach large, targeted international audiences. The X-Culture project primarily relies on the AOM's International Management Division and AIB's mailing lists to inform and invite potential partners. Each semester, calls for participants generate applications from up to 200 professors. About half of the applicants are disqualified due to schedule mismatch, course content misfit, and related reasons.

To prevent information overload, the call for participants sent through professional associations' mailing lists should contain only a brief project description and a link to a website. Regardless of how much information is provided in the call for participants and on the project's website, the project coordinator will receive an avalanche of messages with additional questions and, often, suggestions.

Our experience shows that most applications come from US-based universities. It is not likely to be a problem in most instances, but if the goal is to keep the student teams culturally balanced, as would be the case in IB projects, then a disproportionately large number of US-based universities may necessitate the rejection of applications from overrepresented regions, particularly from those universities with large class sizes and a small percentage of international students.

In contrast, some geographic regions are likely to be underrepresented. The X-Culture experience shows that it is difficult to find partners in Africa, parts of Asia and Latin America, and former USSR republics. The AOM and AIB membership is limited in these regions, and it is necessary to rely on personal contacts, targeted mail invitations, and local professional associations.

Due to differences in skill level, we recommend use of an online training program for both students and instructors and a pre-project "readiness" assessment. The assessment should cover major topics and can be quite simple. The readiness test assesses not only the knowledge and skills but also the commitment to the project and infrastructure availability. While the project coordinator may not feel comfortable requiring his/her colleagues to complete these pre-project tasks, a survey of X-Culture instructors shows that they overwhelmingly support this practice.

### Challenge 3: Coordinating Academic Schedules

Ideally, we want students from different countries to work together during the entire semester. Unfortunately, semester start and end dates vary drastically across countries and universities. Therefore, for some of the participants the project starts earlier in the semester and may end mid-semester, and for others the project may start later in the semester and conclude at the end of the semester. Generally, the active collaboration period lasts 2 months. To align the project with the semester schedule, we recommend filling in the "empty" parts of the semester with more in-depth pre-project preparation for those students whose semesters start early and more in-depth post-project discussions, presentations, and reflections for those students whose project ends later in the semester. This makes international collaboration the theme of the entire semester, even though the actual collaboration spans only 2 months.

It is critically important that the start and end dates and deadlines are identical for all students when developing an ICE project. Our experience shows that any inconsistencies in project schedules lead to team conflicts, varying levels of student involvement and student dissatisfaction. Inconsistencies in the exam, holiday, and semester break schedules should also be taken into account when setting project deadlines.

An ICE project should constitute a substantial part of the course and the weight of the project grade in determining the total course grade should also be substantial as it strongly affects student motivation.

The project organizers should be aware that even if the project is limited to 2 months, some universities still will not be able to participate due to schedule differences. Many schools are on a trimester or quarter schedule which does not align with the traditional semester-based schedule. Our experience shows that these “out-of-schedule” schools tend to be in the UK, Ireland, India, and some schools in the USA. The only way to get them involved entails splitting the project into an “early” and a “late” track. This division, however, requires additional coordination resources.

#### Challenge 4: Designing Project Deliverables

Developing project deliverables that fit the design and structure of IB courses offered in many different countries can be a major challenge. ICE works best for standard courses, such as IB or International Marketing. Although the content of traditional IB textbooks is similar, there is still much instructor-specific variation in the course content and structure, which makes it difficult to design a task that universally fits all participating courses. Furthermore, students at different schools have various levels of course-specific knowledge, general knowledge, and technical skills, which may lead to the “Goldilocks effect” where it could make the task “too easy” for some, “too hard” for others, and “just right” for a few.

Another challenge is finding a reasonable balance between clearly defining the project process and deliverables versus allowing student flexibility and creativity. On the one hand, students want clear structure and specific guidelines. On the other hand, students may learn more by finding novel ways to approach and complete the project. We recommend that team tasks and instructions are general enough to fit a broad range of courses, instructor styles, and student capabilities. The scope of the project should be broad and cover multiple disciplines. For example, the X-Culture project could be used in IB, marketing, management, entrepreneurship, and communication courses. In this way, students will receive a fuller and richer experience similar to the business world in which employees are engaged in team projects comprised of people with different skill sets and backgrounds. Students will typically split the workload so they can assign tasks based on the expertise of each teammate. Even though the project should allow for student creativity, experience shows that some structure is needed and appreciated for completion of the business proposal report. Therefore, clear formatting guidelines, report topic suggestions, page limits, reference styles, and other guidelines are necessary. Within the project research and teamwork activities, students are able to use their flexibility and creativity, but for the project deliverables, with the proper guidelines in place, students are evaluated more equitably, and the instructors will receive higher quality deliverables based on the expectations set for the students. Additionally, numerous interim deadlines, preferably one every week, encourage steady and timely performance.

To make the project as realistic as possible, it is best if students rely on free online collaboration tools such as Facebook, Skype, Twitter, Google + , Dropbox, Doodle, and e-mail, rather than a designated project platform and discussion boards. The latter are project specific and will not be used in the real workplace, while the former are used almost universally. This approach is a

major benefit that allows students to adopt collaboration tools that many of their instructors are not even aware of yet. For example, our records show that many X-Culture teams adopted some collaboration tools, such as Facebook's video chat or Google Drive even before the instructors became aware of the availability of these tools. In addition, since many students now use smartphones they are able to communicate on a 24/7 basis with their teammates.

#### Challenge 5: Recruiting and Selecting Students

Most X-Culture participants are students enrolled in IB or related courses, and participation in the project is one of the course requirements. However, in some cases, students are recruited across the campus and participate in the project for no academic credit. In cases like this, the college deans felt that the project would be a valuable learning experience for their students, but it did not have a good fit with any specific course.

Many instructors want to participate but feel that not all of their students are ready for a global collaboration project or are concerned their students will not be productive teammates. In some courses, instructors select only part of the class to participate, those students who are more fluent in the working language or are otherwise better prepared. Our experience shows that it is desirable to let students opt out of the project and only have the most interested and committed students participate. This strategy helps to avoid future problems with absenteeism and free riding. In addition, it drastically improves the positive experience of those students who participate because they can work with other students with similar levels of commitment and desire to interact with students from different cultures.

If a university decides to let "volunteer" students participate, the following questions must be answered first: What is the best method to recruit volunteers? Will these students receive academic credit? If not, how will you motivate them? How will the project be marketed to students? Can you recruit an instructor to sponsor these students? What participation incentives can you provide if there are no grades or course credit?

Obviously, for efficiency reasons, instructors want all their students to complete the same assignments for the course. Splitting students into X-Culture and "other groups" creates classroom problems. If some students are unable to participate they can be given an alternative assignment (e.g., write a paper) that requires about the same amount of time and effort. The instructor must take a leading role in this area. He/she must explain the importance of the project and potential benefits to the students. In addition, he/she must clearly explain his/her expectations, the weighting of the project in the final grade (more about this topic later), and how he/she will evaluate the student's individual performance and teamwork. If the problem is poor working language proficiency, students may be put on single-country teams or on international teams in pairs with their classmates who are more skilled in English. In either case, all students complete the same project and are graded in the same manner.

#### Challenge 6: Master's and Undergraduate Students

A call for participants will likely attract both professors who teach Master's and undergraduate level courses. Should the Master's and undergraduate students be placed on mixed or separate



teams? The concerns are that the more experienced Master's students will be held back by the limited skills and knowledge of their undergraduate counterparts and the higher quality expectations of Master's students' work. On the other hand, it may not always be possible to place Master's and undergraduate students on separate teams.

We found that Master's students are better prepared and more mature, but not necessarily more committed. Master's students often have jobs, families, and less time to spend on the project. They may already have some international experience and consequently not value the ICE opportunity. At the same time, Master's students are more serious about their education and may get more upset if their teammates do not display the same level of commitment and have high performance expectations.

Even though our data show that differences are not that great in terms of commitment and technical skills, if something goes wrong, Master's students tend to blame it on their undergraduate teammates, who they see as not serious or skilled enough and complain to their instructors. In these cases, the instructor must clearly explain his/her expectations to the Master's students and strongly urge them to take a leadership position on the team. In many ways, this accurately mirrors the business world. People have different talent, experience, commitment, and interest levels. A good team leader must find ways to blend the skills of each team member so everyone works toward successfully accomplishing his/her goals.

Based on our experience, we recommend that, if possible, Master's and undergraduate students be assigned to separate teams in order to avoid some of the challenges discussed above. Unfortunately, Master's students tend to come from the same or a few cultural regions, which makes it difficult to form reasonably diverse all-Master's student teams. Assigning one or two Master's students to a larger team can be beneficial. Master's students tend to be team leaders, contribute a breadth of knowledge and experience, and improve team structure, making it a more enjoyable experience for everyone. If Master's and undergraduate students must be mixed, it is best to pair Master's students with senior students to minimize age and knowledge differences. Additionally, the instructor should clearly communicate, in advance, his/her reasons for the team assignments and his/her expectations for teams and individuals to prevent future misunderstandings. Overall, however, our X-Culture experience shows mixed teams do as well as separate teams, although student satisfaction in mixed teams tends to be slightly lower.

#### Challenge 7: Assessment and Project Grades

Differences in assessment and grading can significantly affect student motivation and lead to conflict within teams. Therefore, all participating instructors should use a universally agreed upon assessment and weighting system to evaluate all students in a similar fashion. Unfortunately, a unified approach is not always possible due to differences in institutional policies, instructor preferences, and teaching styles. The challenge is finding a balance between consistency and flexibility in grading.

A second significant challenge is finding a way to assess individual student work and to determine a fair balance between team and individual work, one that provides a strong incentive for individual performance but does not remove the need for teamwork. Teamwork is the

foundation of ICE projects. Therefore, the grade should be based on team performance as much as possible to encourage teamwork. On the other hand, many students will not be satisfied if their grades depend on the performance of people in other countries, especially if they do not have control over the situation or encounter team members whose performance is low. The key is to devise a system that ensures a student earns a satisfactory grade as long as there is evidence that the student has worked to his/her full capability and provided reasonable assistance to his/her team, even if the other team members performed poorly. We recommend several steps to take in order to address the above challenges.

First, instructors should consider ways to maintain grading consistency. Inconsistencies in team evaluations lead to several problems. For example, students of instructors who place a greater emphasis on the ICE project and set the bar high in their grading standards tend to take the project more seriously and become disappointed when some of their teammates underperform. We recommend that instructors work together to determine the team evaluation standards prior to the start of the X-Culture project.

Another way to establish grading consistency is to set upper and lower limits for the weighting of each evaluation criterion. The project coordinator can make this recommendation at the beginning of the ICE project. Our experience shows that it works best when an ICE project accounts for no less than 20 % but usually not more than 30 % of the final course grade. Setting limits helps instructors set student expectations for the importance of completing the ICE project.

It is also important to give evaluation criteria guidelines to the instructors prior to the start of the project with at least 80 % of the criteria agreed upon by all instructors. This policy gives the instructors some flexibility in setting evaluation criteria for their course but maintains a certain level of grading consistency at the team level.

Project coordinators should implement a mix of individual and team deadlines and tasks. In this way, instructors can base the students' final grades on a combination of individual- and team-level criteria. For example, the X-Culture project uses the following individual criteria for evaluation: (1) A training test should be administered prior to the start of the project that students must complete. (2) Four surveys must be completed. One should be administered prior to the start of the project, a second and third during the project, and a fourth upon completion of the project. (3) Two peer evaluations should be completed by individual students for each member of their team—one during the project and the second upon project completion. At the team level, student evaluations should include the following team-level criteria: (1) three team deadlines that include completing a report on establishing contact with team members, finalizing the company and business proposal idea, and completing the final team business proposal report and (2) numerous dimensions in the team report evaluation including novelty of the business idea, economic feasibility of the proposal, ability to identify challenges and suggest solutions, clarity of the presentation, attention to detail and thoroughness of explanations, formatting quality, and writing style.

This combination of individual and team performance deadlines and expectations ensures that the majority of a student's grade depends on individual performance; yet, there is enough team

performance criteria embedded in the project design to provide motivation for the students to work interdependently as a team.

Experience shows that using a Pass/Fail grading system, as opposed to continuous grades, for most project components seems to work best. This approach removes much of the peer-dependency anxiety and stress, while still providing sufficient motivation for participation. Expectations for a pass should be high but reasonable enough that students know that as long as they do their best, they can earn a passing grade. As a result, the students seem to enjoy the project more.

It also helps to build into the course several additional X-Culture assignments. For example, throughout the project an instructor can have his/her students write blogs about their experiences. At the end of the course, students can be required to write a reflection paper or present their experiences, including lessons learned. In addition, instructors can incorporate some aspects of the X-Culture project into their final exams. Finally, we found that discussing the X-Culture project for a few minutes each class period improved student motivation and commitment. Since the instructor was continually stressing the importance of the project, and checking on student and team performance, they understood the project was an important component of the course that required their best effort.

Furthermore, the project coordinator should provide instructors with as much team and individual performance data as possible and should send updates frequently. Students must be aware of their team's performance throughout the project. The project coordinator should also communicate to the students and instructors that some differences in performance appraisal make the project more realistic. For example, in the business world, members of GVTs are not paid the same and are not evaluated based on the same criteria.

#### Challenge 8: Managing communications and coordinating a multi-country collaboration project

The main purpose of an ICE project is to give students a unique learning opportunity to experience the challenges and to learn the best practices of international collaboration. One of the biggest challenges in initiating and executing an ICE project is learning how to manage communication and coordination among all of the stakeholders including the project coordinator, instructors, and the students. If the project involves a large number of participants, communication and coordination challenges are likely to be overwhelming, particularly for the project coordinator. The instructors, additionally, should be prepared for some of the same coordination and communication challenges that the students face as they will also be working in the instructor GVTs. For project coordinators and instructors, it is important to keep their correspondence informative, succinct, and respectful.

Language differences also present a major challenge. Even though the project is conducted in English, participants will encounter varying degrees of English speaking and writing proficiency among students and instructors. Additionally, communication in an international context will require additional time and effort due to time zone differences. For example, if participants from South Korea and the USA are on the same team, they will have delayed responses in e-mail communication due to the 12–13-hour time difference.

Technical challenges can also cause communication difficulties. There are occasional problems with some e-mail accounts, particularly “generic” e-mail accounts (e.g., Gmail, Hotmail, and Yahoo). Team members start panicking when they cannot reach their teammates, and instructors may receive several e-mails with complaints. Unfortunately, by the time the nonresponsive student is located, much time is lost and the team falls behind schedule.

Using online communication media as opposed to face-to-face communication can present a challenge. Complications may arise because initially students know little about their teammates (e.g., nationality, gender, age, race, or personality). Participants may not know how to address each other, writing styles may differ in e-mail communication, and some may feel uncomfortable speaking to each other using Skype or social media. Differences in cross-cultural communication styles can lead to misunderstandings. For example, a direct communication style may lead to complications if all team members are not used to this style.

Based on our experience with developing, executing, and evaluating the X-Culture project, we recommend assembling a detailed instructor’s handbook that anticipates some of the major challenges that may arise with the participants. The handbook should contain: policies that will address major issues; links to all forms, documents, websites, and other resources; all templates (or links to them); a list of all deadlines; and frequently asked questions (FAQs) and appropriate responses. This invaluable instructor resource will save time and limit unnecessary e-mail traffic.

For situations requiring instructor collaboration, it works best if discussions are moved to Google Docs or other web-based discussion boards, rather than numerous e-mails. Unfortunately, fewer people tend to take the extra step to share their thoughts outside the usual communication channels, such as e-mail, but discussion boards offer an option of anonymous replies, which facilitates openness and creativity.

### Challenge 9: Data Collection

Multi-country large-scale ICE projects present a wonderful research opportunity. However, data collection can be a challenging task. Generally, student performance data are collected for grading purposes and can be used for research purposes.

The challenge is to devise a data collection system that is reliable, convenient for students and instructors, and the resulting data are easy to read and share. Most importantly, the data collection efforts must not compromise the academic values of the project. It is tempting to use access to a large number of students to collect data on a wide range of issues. The project organizers will receive numerous requests from their colleagues and graduate students to help with data collection for various projects. We strongly encourage keeping the participant surveys and observations to a minimum and only collect data directly related to the project that can be used to further enhance student learning. Collection of any data not directly related to the project is likely to be frowned upon by the students, reduce student satisfaction with the project, and divert students’ attention from more important issues. In addition, survey overload may lead to survey response fatigue, which may seriously compromise data validity.

Multisource data are also important; self-report data (self-report surveys) are easy to administer and collect, but may lack validity and reliability. Since the ICE project typically relies on online collaboration tools, the data should be collected online. Centralized collection helps to avoid discrepancies in data collection methods and instructor-specific factors. Ensuring that all students have access to the data collection tools is critical. Depending on the size and scope of the project, free or low-cost online data collection services are likely to be sufficient in most cases. If the size of the project and the sophistication of the data and research design increase, more advanced online data collection tools may be needed.

We strongly recommend that invitations to surveys be sent out with personalized links that contain the respondent's information embedded in them (name, university, etc.). This method not only allows for shortening the surveys since much of the information is recorded automatically but it also ensures consistency in the identification of respondents and their teammates. The use of personalized links and macro-data that automatically recognize the respondents and retrieve names of peers for peer evaluations greatly simplifies data preparation and merging.

We recommend that survey reminders and thank you notes be sent out centrally by the project coordinator. While it may seem reasonable to leave this responsibility up to the instructors, our experience shows it is better to have the project coordinator perform these functions and keep the instructors updated on who has and who has not completed the survey. This approach ensures consistency and reliability.

Once the data are collected, it is important that they be shared along with a detailed data codebook. While the project coordinator or data administrator may be familiar with the data set, it is unreasonable to expect that all project participants will be able to make sense of the data on their own. Therefore, a detailed data codebook must be prepared to accompany the data set to provide additional information about each variable.

Finally, team reports should be considered a form of data. We recommend that team reports be submitted electronically. Even though it may be tempting to request hard-copy submissions, electronic submissions make it easier to compile the complete database of reports and share them with the instructors for grading purposes. For research and grading purposes, we also recommend that each team report be evaluated by several instructors, at least by those instructors whose students compose the team. This way, each report is evaluated by multiple independent raters which improves the reliability and validity of the assessment.

Our experience shows that a system of centralized submission (similar to Dropbox in Blackboard) works better than submissions through individual instructors. The X-Culture team uses TurnItIn which not only allows for centralized document submission but also checks team reports for plagiarism.

Once the reports are submitted electronically, the project coordinator needs to make sure all instructors review the reports within 2 weeks so the assessments are available on a timely basis. We have experienced some challenges regarding instructors failing to submit assessments on time. The expectations of assessments' deadlines should be communicated in advance to ensure the instructors allocate the necessary time for the task and take it seriously.

## Challenge 10: Co-Developing Research Papers

Multi-country ICE projects yield data suitable for high-quality research. A large team of instructors is a valuable asset. However, the size of the team also presents a coordination challenge. First, collecting, merging, and sharing the massive multilevel/multisource databases are a laborious task. Second, differences in opinions, beliefs, and preferences among instructors are likely to present challenges at the data analysis, interpretation, and paper write-up stages. Finding a balance between using multi-perspective brainpower and keeping coauthor teams manageable is critical. Third, multiauthor teams are likely to experience challenges related to issues of authorship and data copyright. For example, if the team size is large, it may mean that a paper written by the team may have a dozen or more coauthors and this may lead to some dissatisfaction among the coauthors, who may feel they are not getting enough credit for their work.

To prevent many of these problems and maximize the potential of the research team, we recommend that research and coauthorship policies be developed in advance and clearly communicated to all current and prospective project participants. Data preparation and merging works are best if done by one dedicated person. The task is simply too complex and difficult to explain to multiple people, and it is generally more efficient for one or a few people to handle the task. If resources permit, it would be ideal to have a full-time research assistant or employee specifically for this task.

To ensure that high-quality research is produced and that it benefits the larger community, we encourage research participation (i.e., idea generation, input in data analysis, and paper write-up) both within the team as well as of qualified “outsiders.” It may be tempting to restrict access to the data only to instructors whose students participate in the project, but if the goal is to generate knowledge—and not necessarily stretch the curricula vitae of the few—allowing access of qualified outsiders to the data will likely help.

When a proposal for a paper is put forth, the lead author should develop a detailed plan and set deadlines for the paper’s development process. This procedure will curtail ambiguity and delays. Once the paper outline is collectively developed, the lead author should provide clear instructions for all coauthors as to what needs to be done and how, to ensure that the final product is coherent.

There will be coauthors who will sign up to work on every proposed paper, but they may not be able to provide meaningful input due to busy schedules, lack of skills, or limited work ethic. Decide early on how the author order will be determined, how input quality will be measured, and what will qualify as “unsatisfactory” participation. Additionally, make a determination and set guidelines and policies that clearly delineate the qualifications and expectations for participation and, if these are not met, make a decision on how to handle removal of the participant from the coauthor team. To avoid errors and time loss, resulting from multiple manuscript copies, always maintain a copy “in the cloud” using Google Docs or Dropbox. Use Track Changes (if using Microsoft Word) to view changes and identify the author making the changes. However, no matter how reliable the system may seem, the lead author must often save

a copy on his/her hard drive as the main copy “in the cloud” will be mistakenly deleted or altered.

### **An Instructor’s Perspective**

With all the challenges and extra work required, instructors must carefully weigh all the pros and cons before incorporating an ICE project into their courses. As we discussed previously, there is a lot of work required and you will face many challenges with ICE projects. However, we believe ICE projects provide a unique learning experience for the students to gain first-hand knowledge of what it is like to work on a GVT, communicate across vast time zone differences, meet strict deadlines, and produce a final deliverable. Beyond these benefits, the students begin to understand the value of teamwork and diversity. Moreover, they learn how to reach consensus with a diverse group of people. In addition, they learn to find each person’s strengths and to determine how each person can best contribute to the team report. They come to grasp that while everyone is different, there are some areas in which everyone shares similar values, such as family, friends, and Facebook. Finally, they learn no country has an exclusive monopoly on smart people or free riders. These are all valuable lessons which they will use throughout their professional careers.

Some instructors expand this experience to help the students see an even broader picture. Through in-project blogs and end-of-project reflection papers and presentations, the students are encouraged to recognize the reasons people acted in certain ways, find creative solutions to their team challenges, and identify steps they could take to improve their cultural awareness. In addition, X-Culture lessons can be reinforced through case discussions involving similar themes. Sometimes current events allow the instructor to relate X-Culture challenges to the real world. For example, the recent Euro zone debt crisis highlighted the cultural differences between certain European countries and the culture-driven challenges they face to reach acceptable compromises in order to resolve the crisis. Finally, the instructor can incorporate several aspects of the X-Culture project into their final exams. The students use traditional IB concepts to develop their team reports, and these concepts can be reinforced in their exams to help them understand the relationship between the X-Culture project, their course work, and the global business environment.

The instructor needs to have a thick skin and a positive attitude. The students will complain, and unforeseen things will occur. Every student will say he/she is working exceptionally hard on the team report, but their teammates would not respond to their messages, refuse to help, or turn in substandard work. Moreover, the best complaint is, “this is so much work and I wish I took Instructor Easy Grader’s IB course.” Yes, these complaints are the same that one hears in class team assignments, except now they have a global element to them. It is in these moments, the instructor smiles at the students, explains the value of perseverance, encourages them to keep moving forward, and promises them there will be a happy ending to their X-Culture story.

It is a very rewarding experience for the instructor to watch his/her students learn and grow throughout this project. Some of the student product and service ideas are very creative. In a recent class, students had the following ideas: a McDonald’s and Weight Watchers partnership to serve healthy food, a YouTube application called GroupIt allowing people to categorize similar

video topics, a Walt Disney “Little Entrepreneurs” program to teach small business skills to preteens, and a new Apple gaming console called iGame.

In one blog posting, an instructor used the following formula to describe his X-Culture experience:

X-citing + X-cruciating + X-hilaration + X-haustion = X- Culture

From an instructor’s viewpoint, it feels like an emotional rollercoaster ride. Sometimes the activity is very exciting and challenging and other times the students are frustrated and discouraged. In the end, most students are exhausted but elated to finish their team reports and proud of their accomplishments. Perhaps, the culmination of this experience is best stated by the musical group Green Day in their song Time of Your Life, “... it’s something unpredictable but in the end it’s right, I hope you had the time of your life.”

### **Where Do We Go from Here?**

The X-Culture project has proven to be a very beneficial undertaking for IB instructors wanting to provide experiential learning for their students. Additionally, it is a data gold mine for those interested in studying the antecedents and outcomes using a multitude of variables related to GVTs. We have several ideas for ways to expand the X-Culture project concept to benefit future students, researchers, and instructors.

We are exploring ways to expand this project so students will work directly with multinational companies. This extension would make the project even more “real life,” and create opportunities for IB students to meet and interact with corporate executives. The project teams would present their business proposals to company executives and, in an ideal situation, the company might even implement the best business proposals. As more companies incorporate GVTs into their work practices and organizational structure, ICEs at undergraduate and graduate levels will provide companies with new hires who have already experienced the opportunity to work on GVTs. Companies will save valuable time and training dollars. In return, there is an opportunity for multinational companies to sponsor projects and fund opportunities to expand the X-Culture project so that more students can participate. For companies, the X-Culture project could amount to a semester-long job interview. Given the detailed data on performance, it could be a great way for companies to select future employees.

We plan to use X-Culture as a springboard to get our students involved in and exposed to academic conferences. The best X-Culture student teams will be invited to present their team reports at regional and national AIB and AOM conferences. In addition, we are encouraging students to submit papers to these conferences and academic journals. This practice will serve the dual purposes of improving our students’ communication skills, while reinforcing the lessons they learned during the X-Culture project. Our challenge will be to find funding sources to defray our students’ travel costs. We are exploring various funding sources: government grants, private foundations, university funds, and corporate partnerships.



Many universities sponsor business plan and ethics competitions. We think the time is right to start an IB X-Culture competition. The competition could be sponsored by one university or, perhaps, by several universities and could be held in different international locations. Annually, we would bring together the top 10–15 college teams to present their business proposals. We would recruit corporate executives, college instructors, and government officials to judge the competition. Using the funding sources identified above, we would provide cash prizes to the winning teams. As importantly, these competitions would promote student networking that will be beneficial for future career opportunities.

We have been approached by non-IB instructors about expanding X-Culture to include other disciplines. This project could be expanded to cross-cultural management, industrial organizational psychology, civil engineering, human resources, and many other areas. We are open to this idea but need to ensure there is adequate administrative support and that the students possess the requisite business skills. Alternately, we may “franchise” the X-Culture approach and allow other disciplines to adapt the basic X-Culture framework to fit their specific needs. We believe that in the near future there will be X-Culture-like projects hosted in other languages. It is not difficult to imagine a Chinese (Mandarin), Spanish, or Arabic X-Culture project.

The research opportunities from this project are unlimited. We already develop papers in large coauthor teams with the numbers reaching a dozen or more collaborators. A more radical idea is to take crowdsourcing a step further and make all X-Culture data freely available to the academic and professional community. Using crowdsourcing techniques, we would involve a much larger number of researchers and practitioners. We believe this change would significantly increase the quantity and quality of new research. Since the main goal of X-Culture is to enhance our students’ learning and make them more valuable in the workplace, we believe this approach is in line with our goals. We still need to resolve several issues on data ownership, privacy, and authorship but we believe this approach holds unlimited potential for X-Culture research.

We are exploring ways to fund this project in order to provide services and outreach to even more students and instructors. Pay-based participation would provide the much-needed financial resources for improved project infrastructure and dedicated support. However, X-Culture believes in open access and, therefore, there are no current plans to switch to a pay-based system.

## **Conclusion**

Our X-Culture experiences have been very positive. Our data show that over the course of the project our students become more culturally sensitive and open to new ideas. They have improved their ability to work in GVTs and communicate across large time differences and cross-cultural communication barriers using the most current social networking tools. They have used their IB knowledge to develop innovative and creative business ideas. In addition, they have learned to deal with complex situations and to meet strict deadlines. For instructors, X-Culture provides an opportunity to meet their foreign colleagues and collaborate on academic papers and other research. It helps us bring the real world into our classrooms and enhance the learning experience for our students. We have many ideas of ways to improve and grow the X-Culture project. The future is bright, and we look forward to working with those who have the same

interest, excitement, and dedication to making ICE projects an important part of every student's academic program.

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