Undergraduate Research in Study Abroad

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There is a growing interest in undergraduate research abroad programmes. How can you link these successfully with studying abroad? How is it different from regular study abroad programmes? What are the unique selling propositions? International educators, experienced in administering international undergraduate research programs abroad, will tell you in this text, how they do it and what undergraduate students gain from conducting research abroad for 1-2 semesters.

Con	tent	Page
1.	Introduction	60
2.	EuroScholars	62
3.	Student Interest in International Undergraduate Research: A Perspective from the University of Denver	e 67
4.	The University of Queensland Summer Research Programme	70
5.	Offering Undergraduate Rearch at Utrecht University Through EuroScholars	74
6.	Advising and Placement for North American Study Abroad Students: a Practical Guide with EuroScholars	78
7.	Conclusions	82
8.	Advice	83

The binding of this supplemental volume enables you to remove each article from the cover and file it according to your needs. Also, for your convenience, all articles have been organised by chapter and subchapter online at **www.handbook-internationalisation.com**. This article, C 2-6, has been assigned to:

Chapter C: Innovation, research and researchers
Subchapter C 2: Research training in an international context

1. Introduction

Benefits of undergraduate research

Undergraduate research can play an important role in undergraduate student mobility. However, sending students to another institution for research is not the easiest primary focus of a student mobility programme. Undergraduate research presently receives a lot of attention and many universities are exploring options to facilitate this type of teaching and learning. There are sound pedagogical reasons for practicing this form of academic teaching (Lopatto, 2010). In some ways, it creates win-win situations with students contributing to research projects and often returning to the same field of research to conduct farther studies towards graduate degrees.

At many universities, it is becoming an increasingly common element either in the curriculum or as an extracurricular option. In the USA, the National Science Foundation offers funding opportunities for Undergraduate research through its Research Experiences for Undergraduates (REU) programme (NSF, 2014). A quick internet search on 'undergraduate research options' reveals that the most common formats tend to be short projects included in regular coursework, a full time project included in the curriculum instead of a course or undergraduate research as a summer programme. Especially in the USA, undergraduate research is often a summer programme between years 3 and 4 of the undergraduate programme.

The positive impacts of undergraduate research for students are manifold. Students learn to work in a research environment and better understand conditions for research because they actually live the experience. It is not only for academic reasons that undergraduate research adds value for students: their personal development as well as their career path is positively affected by participating in undergraduate research. David Lopatto (2010) gives an extensive overview of the high impact of undergraduate research on student experiences. The Council of Undergraduate Research (CUR, 2014) reports the following student benefits for undergraduate research:

- Enhances student learning through mentoring relationships with faculty.
- Increases retention.
- Increases enrolment in graduate education and provides effective career preparation.
- Develops critical thinking, creativity, problem solving and intellectual independence.
- Develops an understanding of research methodology.
- Promotes an innovation-oriented culture.

While there is a growing interest in undergraduate research options, those options are not often linked to study abroad. Most of the study abroad offerings for undergraduate research are internships, fieldwork and community service learning projects. Undergraduate research programmes, where students do an academic research project at a university abroad, are limited, and yet these types of programmes combine the added values of undergraduate research and study abroad in one experience.

High achieving students desire more from their study abroad experience and undergraduate research is one option to custom-design and partake in a significant career building experience while earning credit and gaining excellent cultural experience. Administering these programmes is a delicate if not labour intensive process and yet the successful outcomes for these students are beyond compare. Research opportunities abound in scientific fields, the liberal arts disciplines, and health sciences, among others, offering students key opportunities to participate with renowned academics worldwide.

How can we best serve students with their academic pursuits in these programmes and yet maintain quality frameworks for education abroad?

In this article we will explore some of these programmes, which pose the following questions: Why are students interested in these programmes? What is in it for the students, the home, and the host university? Why is undergraduate research not just study abroad? How best to organise an international academic undergraduate research programme?

The topics include:

Undergraduate research abroad

- EuroScholars: undergraduate research in Europe.
- Student interest in international undergraduate research. An example from the University of Denver, USA.
- The Summer Research Programme at The University of Queensland, Australia.
- Undergraduate research semester. The EuroScholars programme and Utrecht University, the Netherlands.
- Facilitating Undergraduate Research Opportunities: practices at GlobaLinks Learning Abroad, USA.

2. EuroScholars

In 2006, a group of members of the League of European Research Universities (LERU, www.leru.org) discussed the options for creating inbound study abroad opportunities in international undergraduate research. The group focused on a programme that would benefit both participating student and the participating universities.

In 2008, the first cohort EuroScholars students started an undergraduate research semester in Europe. EuroScholars (www.euroscholars.eu) is provided by a consortium of nine European research-intensive universities.

Here is a list of universities offering the EuroScholars program:

- Karolinska Institutet, Stockholm, Sweden
- KU Leuven, Belgium
- Leiden University, the Netherlands
- Ludwig-Maximilians-University Munich, Germany
- University of Geneva, Switzerland
- University of Heidelberg, Germany
- University of Helsinki, Finland
- University of Zurich, Switzerland
- Utrecht University, the Netherlands

The name 'EuroScholars' both reflects the academic basis (scholar) and the geographical location of the programme in Europe (euro). Students in the programme become true 'EuroScholars' when they contribute to European scientific research. 'Euro' also expresses the different characteristics of the programme being an abbreviation for 'European Undergraduate Research Opportunities'.

2.1 Programme characteristics

The purpose of EuroScholars is to give students from undergraduate programmes in North America (USA and Canada) the opportunity to participate in a study abroad period that is embedded in research activities with one of the European consortium members.

All consortium members are prestigious European research universities that cover almost all academic fields. The study areas, in which students can do research, range from Language & Culture, History, Humanities, Social Sciences, Physics, Biology, Biomedical Sciences, Law, Chemistry, Engineering, Psychology, Economy and many more.

EuroScholars currently offers about 160 research projects in almost all academic disciplines.

Due to the profile of the consortium, the programme is exclusively attracting high talented students. The minimum GPA requirement is 3.4. By its exclusive, innovative and individual nature the programme does not attract large numbers of students. For the EuroScholars' universities, this offers good opportunities to spot and attract talented research focused students at an early stage in their carrier and maybe recruit them for a graduate programme.

EuroScholars is not a regular study abroad programme. The focus is not on the traditional study abroad students' interest per se, but on students who otherwise might not consider study abroad (such as students in honours programmes). Therefore, it doesn't automatically fit in the regular study abroad services and procedures at the host and home universities.

The need for a tailor-made, and hence personalised, approach does not allow large numbers of students either.

Designed for North American students, EuroScholars is a unique offering for students who wish to have a research experience working with post-graduate students, faculty, and other undergraduate students on projects for which they have applied and been vetted and accepted. Student participation on this type of research project is geared towards the natural sciences, but not exclusively so; there are students from the arts and humanities and social sciences who have also applied for research programmes abroad.

For the promotion of the programme, contacts with the North American institutions and essential handlings, before and after the students' semester in Europe, the EuroScholars consortium closely collaborates with GlobaLinks Learning Abroad (http://www.globalinksabroad.org), a U.S. based experienced study abroad organization The European EuroScholars' office takes responsibility for all programme related administrative handlings in Europe. At the institutional level, a Euro Scholars Host Institutional Coordinator (HIC) is appointed who oversees the procedures and all activities at the programme level and the level of the individual undergraduate research projects.

EuroScholars' characteristics

EuroScholars is:

- A new and innovative research-based undergraduate study abroad programme.
- For highly ambitious and talented North American students (GPA > 3.4).
- For students with a focus on research.
- A tailor made and flexible research oriented semester abroad.
- At top research intensive university in Europe.
- Offering covering (almost) all fields of academic research.

EuroScholars offers students:

- A unique perspective on academic research.
- An experience on international research practices at an early stage.
- A contribution to on-going and topical research joint-publications.
- International insight for academic maturity.
- Refinement of personal educational goals.
- Better decision making for further study.

The EuroScholars curriculum will consist of the Research Project (main element), literature review (independent study), elective (if applicable), and a language and culture course at the host university for a total or 30 ECTS credits. All subjects appear on a formal transcript from the host university.

Host university and student will vary case by case and there is not one single option to structure the EuroScholars semester and the elements mentioned above. A careful process from application to assessment is essential, as well as clear and timely communication about processes, content and procedures.

2.2 Applying for EuroScholars – Two Steps

It has been extremely beneficial to have a study abroad partner available in the time zone closest to the student's location, so that parents, students and advisors can connect, as easily and readily as possible, during the application process. In the case of EuroScholars, the GlobaLinks

Learning Abroad programme office in Denver Colorado is the U.S/home-base for the programme and to which all inquiries and applications are directed.

Students interested in the EuroScholars undergraduate research programme can apply for a research project in almost any discipline. As stated earlier, the programme has served students in the fields of Agricultural Science, Ancient Studies, Behavioural Science, Biochemistry, Biomedical Sciences and Biology through to Genetics, Law, Psychology, Public Policy and Zoology.

One example of a project:

"Coverage of the US presidential election campaign in German news media:

This research project is at the intersection of Politics, Journalism, Media, American and German Studies and will be directed by Prof. Dr Hans-Bernd Brosius. The student will focus on topics as the phenomenon "Americanization", election campaigns and the use of media."

Students applying for undergraduate research must consider applying even earlier than regular study abroad programmes due to the specialized nature of the programme and the intensive process of communicating about and agreeing on the project. Past experience dictates that application dates be set no later than five months prior to entry if possible and that students have at least a year of university study left at their home campuses when the programme is complete to allow for a deferment if necessary.

Students apply to the undergraduate research programme in either the spring or fall terms using the comprehensive study abroad application form, a faculty/academic reference and an official transcript provided by their home university. They also write a statement about their interest in a research project, keying their application to a project area they find at a host EuroScholars site (see EuroScholars database) or they will attach a descriptive outline for a desired research project so that the EuroScholars European office can find them a suitable placement. Students are reminded that the EuroScholars undergraduate research project is not original student research but rather a cooperative option alongside a faculty member at a host campus. Therefore, it is necessary to locate a suitable mentor onsite.

As introduced earlier, all host campus partners of the EuroScholars programme have a Host Institutional Coordinator (HIC) who is a designated administrator on the campus who will act as the liaison for the student. The HIC at the campus is also the person who meets the student on their arrival and ensures that housing, enrolment and integration are successful for the student. In addition, the EuroScholars con-

sortia have a European EuroScholars representative currently located at Leiden University. These key individuals ensure that the faculty who has been identified to do the research project responds effectively and efficiently to the student application and inquiry.

Once the application is lodged and the faculty consulted, the applicant enters the 'waiting period', while the host campus and host faculty review the student's interest and supplies a reply. North American students in particular are used to quick replies from other study abroad programmes and the age of the internet leads students to expect immediate responses. However, given that this truly is a highly specialized programme requiring approval of host research faculty, who are not typically accustomed to dealing with study abroad students, students need to be instructed in the art of patience. Moreover, the HIC needs to be vigilant about ensuring that the host faculty departments are responsive. This is the most challenging part of administering the EuroScholars programme. Each year applicants may defer or cancel, who otherwise would be great candidates, due to a delay on the part of the host faculty. It is an investment of time to follow-up until a match is made.

Assuming both parties do make a connection, and approval is granted, the EuroScholars programme moves to the next and more important phase of the application and enrolment process.

2.3 The Learning Agreement

Importance of Learning Agreement

The learning agreement is a form completed during the enrolment process by both the student and the host faculty, complete with signatures and acknowledgements from the home and host universities to ensure that everyone is in agreement in terms of the research project and its intended outcomes. This form also serves as an agreement on the credit transfer to the home institution. In the learning agreement, there are four parties involved: home study abroad advisor, student, project supervisor and host university.

The learning agreement is the single most important document in administering an undergraduate research programme at a diverse and selective group of institutions across Europe. The agreement is not only a form of communication but a commitment from the student and the faculty to work together and a commitment from the home university to endorse the experience for academic credit. With the learning agreement, there is less risk for a student to do a longer-term because the credit is pre-determined and the outcomes are agreed ahead of time.

The Learning Agreement, while simple in form, is the key document for all parties involved in undergraduate research. The months it takes to circle the globe are worth the effort in ensuring the parties have a successful undergraduate study abroad programme.

EuroScholars also includes a MidStay programme. This is a 3-day programme where all EuroScholars students in the same cohort meet at one of the consortium partners. The purpose of the MidStay is that students can share (research) experiences in Europe, get a better understanding of the European research arena and the various European cultures and traditions.

Since the start of EuroScholars, the number of students grew steadily every year from 5 to 22 students per year. The tailor made approach limits the programme to grow with an estimated maximum of 50 students per year. In six years 92 students from 50 North American undergraduate colleges and universities participated in EuroScholars. The program is open to all universities without discrimination and universities such as Pennsylvania State University, Rutgers University, Case Western University, Georgetown University, and the University of Denver have all been strong partners in the past years through their affiliation with the EuroScholars programme.

3. Student Interest in International Undergraduate Research: A Perspective from the University of Denver

The success of undergraduate international research programmes depends on the existing culture of undergraduate student mobility and undergraduate research at an institution. The University of Denver meets these pre-conditions; it has a strong culture of undergraduate study abroad and undergraduate research. However, while finding the correct opportunities for students can be challenging, the rewards are deep, resulting in a broader and more variegated student mobility experience that can help to bridge the gap between undergraduate and post-graduate studies. The University of Denver is endeavouring to increase undergraduate student participation in research abroad through a number of initiatives that leverage its success in undergraduate student mobility and undergraduate research.

3.1 Overview

The University of Denver has a successful student mobility programme: since the inception of its Cherrington Global scholars programme in the early 2000s, the University has regularly been ranked among the top six universities in the United States for undergraduate student participation in study abroad, sending roughly 70 % of its undergraduate students on longer-term study abroad experiences of generally a semester to a year. As long as a DU student meets certain requirements, she or he can study abroad at no extra cost beyond regular DU tuition,

Undergraduate research University of Denver housing, meals (subject to our agreements with partner institutions and programmes), and other regular living expenses; as a Cherrington Global Scholar, the student's airfare and visa costs will also be paid for by the University. The Cherrington initiative encourages students to study at an array of partner institutions and third-party programmes, emphasizing their integration with the host community as much as possible, something that is achieved through language training prior to departure, service and experiential learning opportunities at the host institution and direct enrolment at English-language institutions around the globe either as fee-paying study abroad students or as participants in one of the University of Denver's exchanges.

DU students usually choose to study abroad in the first quarter of their third-year (of four-year programmes). The fall period matches up well with the fall semester at most of our partner institutions and provider programmes, giving students a longer-term experience abroad before returning to the University to complete their studies. It also marks the typical change in a student's studies from general education requirements to more specialised study in the major. An increasing number of students are seeking out experiential activities overseas, reflecting both their own inclinations to be socially and politically active during their studies and to participate in hands-on learning. It also indicates a certain instrumentalisation of the educational process and a need to show concrete experience outside the regular classroom before deciding to either enter the job market or continue to post-graduate education.

3.2 Internship Possibilities

The University of Denver has restructured its study abroad offerings in order to increasingly emphasize direct-enrol relationships with a select number of mostly English-language universities able to offer a comprehensive array of courses, giving students opportunities for greater academic and cultural interaction inside and outside of the classroom. In addition to such study at English-language partner universities, we also encourage students to study abroad in another language as long as they have completed a minimum level of language training prior to departure. Equally important to the University's goal of curricular integration is a category of programmes that is numerically the greatest: specialised programmes targeted to specific majors or areas of study, or highly competitive ones that offer a more individualised programme of study or work.

In all its programmes, DU is also increasingly seeking to develop internship possibilities on and off the host campus abroad. These can be difficult to negotiate, often because of differing legal systems: questions of supervision, liability, documentation, visas, relationship building with internship providers and credit transfer can be at times impossible to overcome. Likewise, the question of whether a university or partner should craft such experiences only for study abroad students

instead of for all of its students can be a challenging one for the host university, particularly if there are governmental regulations or student mandates that may limit any initiatives that may seem to favour one set of students over another. Study abroad providers can sometimes offer an alternative; it is their job to craft experiences that involve multiple stakeholders specifically for study abroad students, and as companies in the field of study abroad, they may be more nimble and able to react more quickly than universities in providing for-credit experiences in pace with the cutting-edge national and international trends.

However, there is a possibility that straddles the cultures of both universities and providers: a consortium of universities that is coordinated to help arrange specific opportunities for students.

One of the most significant consortiums is currently EuroScholars, the coalition of European universities that offers semester-long internship possibilities in research laboratories. For EuroScholars, the University of Denver limits applications to students who have a comparatively high GPA of 3.5 or more (higher than the EuroScholars base GPA requirement), and students are generally in their fourth-year of study. While seniors assure a solid academic background, this type of limitation also reveals one of the challenges of such programmes within our system: seniors have typically already studied abroad and must find a way to arrange their EuroScholars experience so that they can transfer the credits earned back to the University.

The University of Denver already prioritises undergraduate research, so it may not be a surprise that it has students who wish to extend this sort of experience to laboratories abroad, immersing themselves in a community and gaining important academic and global experience. The Undergraduate Research Center at DU is designed to further and to support undergraduate research projects across the University and includes a system of undergraduate research grants, called Partners in Scholarship, which supports only undergraduate research projects, including those that have an international aspect to them. Given this continuum of prioritising the undergraduate experience, it is no surprise that some of the more ambitious undergraduate students also wish to pursue research in projects in Europe. In addition, since research projects or internships can help connect students with their local community overseas, DU will sometimes exempt students from certain study abroad requirements as long that they participate in an experiential programme abroad.

3.3 Challenges

Despite the increasing student interest in experiential opportunities abroad, programmes such as EuroScholars nonetheless continue to serve a specific niche. North American student mobility initiatives are a combination of extraordinary opportunities for travel as much as

chances to immerse oneself in academic challenges in a different context. At the home institution, students choosing to study abroad are usually balancing competing interests such as the need for specific courses or programmes in their majors or minors, or the desire to complete general education requirements or language study. A programme designed mostly around research has the side-effect of concentrating credits earned into research credits when brought back to the home campus. In the case of DU, students can theoretically earn up to 10 quarter credits of independent research and 10 quarter credits of independent study, but these are subject to absolute limits in any given major or minor's overall credit caps and also cannot be at the detriment of any required courses or capstone experiences in the major. The programme that has been able to integrate such intensive research the most successfully to date has been DU's Biology Department, which is also the home of the pre-medical and pre-dental programmes. DU is working on integrating research abroad into more programmes of study at DU, although it will likely be - "less intensive". The idea is that EuroScholars concentrates mostly on the research aspect, whereas DU's other initiatives will have only a smaller research component than that offered by a consortium such as Euro Scholars, which will remain an option for its best students. The possibility of internships, research-based or otherwise, is promising if the rate of credit earned is around 4-6 quarter credits (roughly 3-4 semester credits, or 6 - 8 ECTS). That said, EuroScholars provides more than only work in a lab and courses such as language and culture classes help round out the student experience. It is worth reemphasising that this is usually a student's second (or third) experience abroad and such students are often willing and able to integrate specific experiences of this type in the undergraduate studies quite easily.

4. The University of Queensland Summer Research Programme

Summer Research programme University of Queensland To facilitate undergraduate research The University of Queensland offers an undergraduate research programme for its current students as well as prospective international students.

4.1 Introduction

The University of Queensland's (UQ) Summer Research Programme was established in 2008 with the aim of promoting and encouraging participation in undergraduate research projects across a wide range of discipline areas. Initially, the programme was offered to current students only, but in recent years an invitation has been extended to visiting international scholars, who are interested in working with a UQ researcher over the Australian summer. There is strong demand for the

programme. The 2013 – 2014 cohort comprised more than 500 students from 17 different countries. Participants engage in diverse research experiences in individual areas of interest and, in the process, gain new skills and build valuable academic and social networks.

4.2 Programme Overview

The UO Summer Research Programme is the largest programme of its kind in Australia. It is a structured co-curricular programme that allows students to undertake a formal research project for up to 10 weeks over the summer semester, generally from late November until mid-February. Projects are designed by academics and advertised by the participating units on the programme website. Interested students are required to submit an online application indicating which research advisor they would like to work with. Following the review of all applications, successful students are allocated a scholarship for the duration of their research project. The selection process for acceptance into the programme is merit-based. Previous academic performance, the strength of the research proposal and a statement of motivation are taken into consideration. Through participation in the Summer Research Programme, students are able to gain a new perspective of their discipline areas, develop a wide range of transferable skills to enhance employability and consider future study options and careers. This is a particularly valuable opportunity for visiting international scholars, as they are able to work with a research advisor and experience the UQ research culture before deciding if they wish to return to UQ for graduate studies

There is significant diversity in the research being conducted by UQ Summer Research students. Recent projects titles showcased on the programme website include:

- Building intercultural competencies: Curriculum development for journalism and communication programs.
- Working with a peptide found in the venom of the Marbled Cone
 snail
- Water related legislation in developing countries.
- How images shape responses to humanitarian crises.
- Real-time observation of skeletal muscle development in zebrafish models of muscle disease.
- Use of Indigenous Vernaculars in Primary School Classrooms.

- Synthesis of Mesoporous Material as Catalyst for Biomass Conversion.
- Vision, navigation and 'cognition' in animals with simple nervous systems, and applications to robotics.

Interest in the programme has grown considerably since its inception in 2008. Participation numbers of the past 6 years are as follows:

Year	2008	2009	2010	2011	2012	2013
Participants	217	314	332	453	540	512

4.3 International Summer Research scholars

Since 2009, undergraduate students from international universities have been invited to participate in the Summer Research Programme. Many of the participating international students have previously completed study as exchange or study abroad students, either at UQ or another Australian institution, but there are also scholars who have had no previous study experiences in Australia. International scholars follow the same application process as local students. They are required to identify an area of interest, nominate a potential advisor and submit a research proposal. Selected students receive a weekly stipend for the duration of their project as well as a \$1000 grant to assist them with travel and accommodation. Students are required to find their own accommodation and cover any living expenses. There are a number of orientation, social, and skill training events scheduled throughout the programme to provide visiting scholars with the opportunity to get to know other domestic and international students, find out more about study options at UQ and make the most of the time in Brisbane.

Since 2009, 166 international students from 46 universities in 20 different countries have participated in the programme. The home countries of previous participants include China, India, USA, Poland, Germany, France, Norway, Brazil, Chile, Mexico, and South Africa. Whilst the number of international students participating in the programme is still relatively small, in comparison to the domestic numbers, participation rates have grown steadily over the past few years, with an 840 % (from 7 to 66) growth from 2009 to 2013.

4.4 Programme Benefits

The UQ Summer Research Program represents a high-impact experiential learning and professional development opportunity with wideranging benefits for students. With projects available across most disciplines, the programme has been designed to ensure that students are able to derive maximum value from UQ's research facilities and expertise. Participants have access to state-of-the-art laboratory equipment and archive material. For the vast majority of students, the programme provides an opportunity to gain insight of and actively participate in all stages of the research cycle. Students are required to develop a research proposal, consider different methodologies, collect and analyse data and finally communicate the outcomes of their research in project reports, conference presentations, and, in some instances, journal publications. Many students undertake their summer projects as part of a larger research team and are able to work not only with their advisor and other undergraduate scholars, but with research higher degree students and postdoctoral fellows. These authentic research experiences not only enhance students' academic development, but also afford scholars considering a career in research and academia a significant competitive advantage. For international scholars, the programme also provides an opportunity to gain exposure to a new academic and research environment and to experience another country and culture.

In addition to test-driving research, the summer scholars are also able to build their social and professional networks. Throughout the 10 week programme, students are invited to participate in research skills training sessions and a wide range of social functions. These activities encourage the development of peer networks, support the integration of domestic and international students, and foster cross-disciplinary dialogue amongst the participants. The programme has also been highly effective in increasing engagement between students and researchers. Following completion of the programme, a number of participants have gone on to complete further research studies with their Summer Research advisor.

From an institutional perspective, the programme has also contributed to UQ's broader global engagement activities, with students from partner institutions able to experience the research facilities and culture at UQ. The programme has resulted in increased student mobility and collaboration amongst research staff at UQ and partner institutions. For example, in 2012, the School of Architecture took advantage of the programme to deepen links with partner institutions in India. Students were selected to work on a trans-disciplinary research project with advisors from Australia and India. The project has resulted in the identification of additional areas for research collaboration and one of the Indian students has recently commenced postgraduate studies at UQ.

4.5 Programme value

The UQ Summer Research Programme has been a valuable tool in introducing international scholars to the research community at UQ. The programme provides all participants with an opportunity to gain greater insight into their discipline areas, develop their research capabilities and academic skills, and access career development. Through the provision of authentic research experiences, the programme has helped to build a strong cohort of undergraduate research scholars and attracted a substantial number of high quality domestic and international PhD candidates. To date, more than 2300 students from around the world have benefitted from their summer research experience and the programme continues to deliver exceptional outcomes for students, researchers and the University.

5. Offering Undergraduate Rearch at Utrecht University Through EuroScholars

EuroScholars at Utrecht University

Utrecht University is a large and comprehensive research-intensive institution providing research and education of high international quality. Research and education at Utrecht University are inextricably connected.

The University's core mission is to:

- Educate young people.
- Train new generations of researchers.
- Produce academics who have both specialist knowledge and professional skills.
- Conduct ground-breaking research.
- Address social issues and work towards solving them.

The university strongly supports the vision that 'quality has no borders' and that internationalisation should be integrated in all is activities.

It also has a long tradition and ambition in honours programmes. The university encourages students to develop their talents to the best of their abilities.

EuroScholars very well fits in the mission, vision and ambition of Utrecht University.

Therefore, the university actively supports the programme. However, the programme can only be successful if researchers are interested to offer projects and appropriate processes and procedures are in place.

At Utrecht University, 14 students participated in a EuroScholars project in 11 different research fields. The experiences of the project supervisors at Utrecht University in general were very positive.

"The only disadvantage is they are so young", remarked one of the EuroScholars project supervisors at Utrecht University. "I can't offer them a place in a graduate programme yet". Like most supervisors of EuroScholars students, he was very impressed by the quality, skills and commitment to research of the students. To quote another research project supervisor, "This person was a very good student, and that made this a very successful experience".

Also students are positive about the research experience. One of them expressed, "Not only did I learn a lot of information about the field of Cardiologic Research but I also learned far more about professional research in general. My experience enriched my degree in molecular biology while also providing insight in to future career options".

EuroScholars is not a traditional undergraduate research activity nor is it a traditional study abroad activity. Both activities are common at Utrecht University but the combination is not. Undergraduate research is integrated in the curriculum in most programmes e.g. as project or combined with an undergraduate thesis.

Students in study abroad programmes tend to stay for a semester and are enrolled in the many English taught courses. Processes and procedures to serve study abroad students are well in place with the joint effort of the International Offices at the faculties and the institutional Student Services unit (www.uu.nl/internationalstudents).

How to make it work?

To implement a new concept like EuroScholars, one needs thorough considerations and communication. Commitment, from people involved in the supervision of student research as well as people involved in serving international students, is a key condition for a successful participation.

As already mentioned, the programme fits in the mission, vision and ambition of Utrecht University. However, that doesn't guarantee that the programme will be successfully implemented. It is the responsibility of the EuroScholars Host Institutional Coordinator to manage all programme related activities at the host institute.

The first condition for a successful participation in the programme is commitment from the research project supervisors who are entitled to credit students. It is crucial to explain to them why there is an added value to host a EuroScholars' student. The main reason to participate is that it offers a good opportunity to attract excellent students to contribute to on-going research projects and studies. Secondly, the application procedure allows them to carefully select a student who has expressed interest in the project him or herself and is eligible to participate. Finally, responsibilities and tasks are clearly described and divided between the various people involved. A Learning Agreement guarantees that expectations about the content, crediting and grading are agreed on before the student will be formally admitted as a Euro Scholars student. The Learning Agreement is signed by the student, supervisor, the study advisor at the home institute and the EuroScholars coordinator. The EuroScholars procedures allow the project supervisor to fully focus on the supervision and assessment. Therefore, the additional workload of supervising a EuroScholars student is limited compared to a regular undergraduate research student.

Although EuroScholars students are not exchange students in the strict sense, they are considered exchange students at the Utrecht University. As soon as the Learning Agreement is signed, the student will be registered at the International Office. This guarantees the students will be provided with the same information and services as the exchange students

The EuroScholars procedure for projects at Utrecht University (UU) in 20 steps:

S = Student

GL = GlobaLinks Learning Abroad

HIC = Host Institutional Coordinator UU

RPS = Research Project Supervisor

SAA = Home Institution Study Abroad Advisor

IO = International Office Host UU

FIO = Faculty International Office UU

ESEO = EuroScholars European Office

1. Expression of interest (Application)	S					
2. Eligibility check	GL					
3. First information send to host university	GL					
4. Check interest from research group to host stud	ent HIC					
5. Preliminary acceptance of student	RPS					
6. Report to GL and IO	HIC					
7. Report to student	GL					
8. Interview	S, RPS					
9. Finalising Learning Agreement (LA)	S, RPS, SAA. HIC					
10. Supporting student to prepare for study abroad	`IO, FIO					
11.Follow up on instructions from O and FIO	S					
12.Arrival S						
13.Orientation programme at UU IO, FIO						
14.Research project (+ other study element agreed in LA) S						
15.MidStay programme ESEO						
16.Supervision, assessment RF						
17. Transcript to GL	FIO, IO					
18. Transcript to SAA	GL					
19. Transfer grades	SAA					
20.Evaluation S and RPS	ESEO					

Despite the embedding of the programme in standard study abroad procedures and processes at Utrecht University, EuroScholars need special attention. The tailor-made approach of the programme is part of its success but also an extra demand from staff at host institutions. However, the positive experiences of students and supervisors, the clear internal communication procedures and flexibility to make it tailor-made, are the key factors for success.

6. Advising and Placement for North American Study Abroad Students: a Practical Guide with EuroScholars

6.1 The Dilemma of Duration and Delivery

Advising for undergraduate research in Europe Long-term study abroad experiences are historically reported to be a more worthwhile investment in terms of cultural and personal growth and yet today, more U.S. students are recorded to be completing a shorter-term experience during their break periods. Open Doors 2013 reports that nearly 59 % of all U.S. study abroad students are now studying abroad in shorter timeframes (i.e. less than 8 weeks) compared to the report two-three years ago when only 50 % of all students preferred short term study abroad. Students and their parents explain they are choosing study abroad during their break period because the overall financial investment may be less extensive than a longer term programme particularly as the shorter term programmes give them less concern about the transfer of course credit. Credit transfer is a significant issue when failure to integrate credit can result in delayed graduation and may extend tuition payments.

International educators however point out that these short term faculty programmes may often displace the cultural value offered by longer term direct-enrolment experiences. And when the student is engaged for a longer duration in diverse cultural settings, the results may yield greater learning outcomes from the programme. What is gained in ease of credit transfer in a short term programme, can be lost in the impact of truly living and studying in a foreign environment.

6.2 Undergraduate Research Programmes: A Counterbalance

Undergraduate study abroad research opportunities represent an answer to this dilemma for both educators and students. By creating more programmes in this underrepresented model, there is a unique opportunity to radically raise the bar on study abroad through a very customized and yet, very directed study abroad programme with high calibre clientele. Undergraduate study abroad research opportunities can successfully maintain the value of direct-enrolment study experiences alongside long term duration and still ensure on-time graduation. The EuroScholars Undergraduate Research Programme is one example proving that, with adequate advising and preparation, new types of study abroad programs can be created with remarkable results. Students in the undergraduate research programmes return home with a unique perspective on their field of research, greater insight for academic maturity, experience with international research practices,

refinement of personal and educational goals, potential joint-publications and hopefully invigoration toward further study. Past participants have remained connected with Europe and for example, report they are now working at The Hague at the TMC Asser Institute or pursuing Ph.D. study at the University of Amsterdam, the University of Helsinki or at Cambridge.

To effectively create and manage undergraduate research study abroad opportunities, advisors and programme managers need to maintain key elements of successful programme management including targeted outreach to students and faculty, best practices in advising and facilitated programme placement.

6.3 Outreach to Students and Faculty

It can be expensive to reach students on campus and efforts are seemingly diluted by the massive competition for information-space. North American education abroad offices and providers make use of traditional marketing such as print media (i.e. posters and publications), visits to classrooms and engagement of key gatekeepers. However, in the case of undergraduate research, the population of students equipped to undertake this experience is more limited and hence, the marketing and advertising opportunities need to be more targeted. The greatest asset to successful undergraduate research placements is a warm and close connection with faculty who distribute information to the key client (the student) and who champions the experience on the home campus.

Leaders of the EuroScholars consortia and the GlobaLinks Learning Abroad study abroad programme have now had five-years-plus experience in marketing undergraduate study abroad programmes at U.S. campuses. The programme has found the following to be the most effective means of reaching qualified students:

- Educating the educator.
- Affiliating with campuses who already have a strong culture of undergraduate research.
- Adopting faculty champions.
- One-on-one interviews.
- Connecting students to the placement site.

By educating the educator, GlobaLinks Learning Abroad appears regularly on college campuses using information sessions for faculty and students to explain the opportunity of studying abroad in a research-type format. These sessions are offered during the day when colleges

and universities are in session and there are often 3 – 4 meetings with individual classrooms or departments. Meetings occur with both deans and department chairs as well as with Honours departments who have access to high calibre undergraduates or who can locate suitable faculty champions. In 2013, GlobaLinks Learning Abroad and the EuroScholars consortium began an annual site visit trip for faculty and advisors to Europe to showcase the EuroScholars programmes and in both 2013 and 2014 there were more applicants than places on these visits. Each experience has strengthened the connection with the home campus to the programme.

Facilitating the interest toward a real-commitment is the goal. And to strengthen the process, the programme has created an opportunity for formal affiliation with the home university for the EuroScholars programme that will effectively secure the support of higher administration so that, essentially, the university itself becomes engaged with the programme. Affiliation is not contractual or overly binding. However, it does represent an agreement to work together in maximizing student learning through the undergraduate research opportunity. Affiliation is only the first step to campus engagement, after which time, a successful match must find faculty champions. These key individuals are important to the outreach efforts as they know their students personally and can recommend the experience to qualified individuals. Champions are well-versed in the programme and while they cannot speak to every discipline available for research, they have a passion to get their top students into an overseas experience.

The biggest effort remains the daily engagement with students through in-person meetings, Skype or telephone interviews. Given a wide United State geographic territory, programme managers often have to meet with students via telephone or Skype and the North American in-office support teams are available 40+ hours a week via a toll-free number. In each encounter, an intake is made to explain the advising, application and selection process for the research programme and to effectively engage the student in self-identifying their strengths. A core message during these encounters is clearly that the student needs to act more independently and to take responsibility for securing the *right-fit* from start to finish. This programme is not a group study abroad experience and therefore, requires a highly motivated self-starter.

6.4 Undergraduate Advising – Best Practices

Best practices

Advising practices for undergraduate research follows similar principles as with any study abroad programme. Even the highest academic achiever will have similar questions regarding living and learning overseas regardless of the nature of their programme. Therefore, programme managers should have a robust series of key questions to start the discussion.

A key advisor kick-starter is to ask the student about their motivations in choosing this type of study abroad programme. Answers range from "a desire to learn a new language" to "a desire for higherlevel academic pursuits". Advisors talk to students about their destination choices, as much as their project because it is imperative that advising staff know about the region, city, and campuses where the undergraduate programmes are located. Throughout the advising process, there is assessment of the student's learning goals and a discussion about the financial and personal commitment to the programme. Thoughtful inquiry is directed toward the student's expectations for on-campus group support and the programme establishes their language skills. The best practices in advising consist of the consideration of individual needs for disabilities, racial background, religious preferences, sexual orientation and even dietary specifications. Students are undertaking a highly specialized academic experience and yet, the programme remains aware that their own personal and social needs must be met as well.

By initially vetting the expectations and nature of a student's interest in the programme, it is clear which candidates will be a good match. It is only then that the discussion evolves to the student's research interest using the EuroScholars database of available projects as a means to channel the discussion. This database is not a comprehensive list. However, the list of projects is an excellent resource that typically leads them to ask more specific questions about a campus or a faculty interest area.

Successful placements are made when we connect the student to their intended overseas faculty supervisor early in the placement process so that both can interview and assess whether the project is the *right fit*. This can be a challenge with foreign locations, time-zones and language barriers. However, if the student is engaged to make the match good, there are excellent results with these initial conversations.

Further advising practices cover a range of enrolment and attendance details including credit transfer, immigration visas, housing options, tourism opportunities and, of course, financial costs. In each of these elements, both written and verbal answers are provided so that students, parents and advisors can review and acknowledge the choices they will need to make. An important element is affordability and the EuroScholars programme is set up so that U.S. financial aid can be secured to help cover the costs. The GlobaLinks Learning Abroad offices remain a close partner to the on-campus financial aid office by providing full programme budgets, delayed payments and a financial aid consortium agreement. Like other study abroad programmes, there are allowances for payment plans and various payment methods to further make the experience accessible. Since its creation, the Euro Scholars programme has hosted nearly 100 students of which 75 %

have used federal financial aid or private scholarships. Organisations such as the Foundation for Global Scholars (http://www.foundationforglobalscholars.org/) are another resource for additional funding.

Every placement made in undergraduate research is an individual one and advising best practices must come with the devotion of staff time and the counselling skills necessary to bring it to a conclusion.

7. Conclusions

Added value for institutions

Undergraduate study abroad programmes are a remarkable new way to build capacity for high calibre students. Through the commitment of extended advisory services, it is possible to ensure that placements are made successfully and the patience required is duly rewarded in the extraordinary outcomes from the programme.

There would be more students interested in undergraduate research abroad if home universities could tie it, even more explicitly, into the already robust undergraduate research opportunities on the campus. Often students have only a limited amount of time to complete their studies, and there are always concerns about cost, tuition and the value proposition of any college experience. As such, there needs to be a clear way for the benefits of an experience such as study abroad, overseas research or international internships to be translated more explicitly into the student academic expectations on the campus, complete with clear outcomes. Research can provide a rare opportunity to build an experience of a lifetime for the student. For the institutions involved, it can be a unique way to build a deeper and stronger relationship that can feed into faculty and post-graduate research cooperation in a fashion that can be more dynamic than the traditional postgraduate exchange. From a broader university perspective, undergraduate research programmes like Summer Research Programme of The University of Queensland and EuroScholars can support the achievement of a number of strategic institutional goals, including attracting high quality candidates and supporting broader global engagement initiatives.

Having being exposed to research opportunities and introduced to potential supervisors, a number of students have continued their research studies or refocused on their future research careers.

8. Advice

Creating successful undergraduate research abroad programmes requires the following:

- Deep participation across campuses and external groups.
- Consult institutional leaders to determine engagement, cross pollinate with departments.
- Offer a broad range of research topics in all fields.
- Establish faculty and administrative committees to guide the programme.
- Consider the participant audience, establish successful outreach and recruitment mechanisms.
- Develop well-rounded experiences at the campus including social and practical services.
- If available, provide financial sources, if necessary in collaboration with external providers.
- Establish good advising practices for more successful outcomes.
- Keep students "warm" so they will return to your university to continue their studies.
- Be flexible, manage expectations and communicate well in advance.

References

- [1] Lopatto, D. 2010. Undergraduate research as high-impact student experience. Peer review (12)2: 27 – 30, AAC&U
- [2] Research Experiences for Undergraduates (REU). National Science Foundation, http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5517&org=NSF
- [3] Fact Sheets Council of Undergraduate Research, http://www.cur.org/about_cur/fact_sheet/
- [4] http://www.uq.edu.au/uqadvantage/summer-research
- [5] Open Doors 2013: Report on International Educational Exchange. IIE
- [6] www.euroscholars.eu
- [7] www.globalinksabroad.org
- [8] www.foundationforglobalscholars.org

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