An Overview of Considerations for Equestrian Industry and Higher Education Research Partnerships

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AESE Research Overview UPDATED

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Introduction

This document provides an overview for members of the equestrian industry considering engaging in research with Higher Education (HE) organisations: universities and colleges. It provides a guide to the different types of research partnerships that are available and what to expect from each one. It is not intended to be exhaustive nor to provide advice and should not be relied upon as a substitute for taking specific legal or other advice.

Summary of key points

- Research projects can be undertaken in conjunction with undergraduate (Honours degree) or postgraduate (Masters and PhD) students.
- Undergraduate research studies are usually small scale projects which have limited application due to their size and the potential for errors within them.
- Postgraduate research studies have more scope for longer term projects and the students are more experienced researchers, therefore the quality of outputs is usually higher than at undergraduate level.
- Students at all levels will expect financial support via provision of products, equipment, travel expenses or support with access to the study population.
- All research projects will need to be approved by an Ethics Committee to ensure health and welfare of subjects are paramount.
- Quality in planning and execution of any research project will improve the potential for quality output.

Level of research

Most HE institutions conduct research at different levels. Undergraduate and Postgraduate programmes normally include a research based dissertation or thesis, which offer opportunities for collaboration. Many staff members are research active in their own right and may also be willing to engage in collaborative research partnerships with industry. In addition, there is usually the option to formally recruit a HE partner to complete your research project but this is usually undertaken on a consultative and full cost basis.

Research in partnership with Undergraduate students

Undergraduate (UG) students in the final year of their degree typically complete a dissertation. The dissertation is essentially a small scale project: the student is required to demonstrate that they have the capacity and capability to formulate a research idea, to conduct their planned research project within the time period allowed and then to write it up in a format which has the potential to be disseminated. The project is undertaken under the guidance of a supervisor, who will be an experienced member of the academic staff. How the dissertation is implemented varies between institutions but all require the student to 'input' into the project to enable them to demonstrate the required skills. Some universities and colleges provide a list of research titles or areas which students can choose from, others encourage the students to

explore an area of their own personal interest and, of course, there is the opportunity for students to engage with industry to undertake collaborative research projects.

What to expect from an undergraduate research partnership?

Study size:

- Undergraduate dissertations tend to be small scale research projects with research populations normally ranging from 6 to 100 subjects.
- Often the study size will be dictated by access to subjects and this can be limited by the time available to the student for data collection and their travel arrangements.

Supervision:

- The student will work closely with an allocated supervisor who typically will hold a minimum of a Masters qualification in a related subject area.

Research input:

- The student will have to provide evidence in their dissertation that they had input into the planning of the research project (with guidance from their supervisor, and potential industry collaborative input).
- The supervisor will normally approve the project unless there are ethical considerations; if these arise the project will need to be referred to the institution's Ethics Committee for approval; this can take 3-6 weeks to complete.

Finances:

- Students normally finance their dissertations themselves.
- HE institutions provide access to facilities and equipment e.g. gait analysis or horses, but there may be limited availability if a lot of students are planning to use the same equipment, therefore consideration of accessibility is needed. It should also be noted that some institutions may not allow kit or equipment to be taken / used away from the institution and many students (and supervisors) may not be experts in using and interpreting any data obtained.

Timeframe:

- Undergraduate dissertations take place in the final year of a degree, usually running from September through to final submission in March or April of the following year.
- Many proactive students will plan for their dissertation in their second year and then collect data during the summer before their final year.
- It should be noted, that ALL students will need to have agreement from their supervisor that their project is valid PRIOR to data collection.
- Some research areas may require data to be collected between the 2nd and 3rd years, for example certain reproductive studies requiring access to foals may not fit into a September to March timeframe.

Realistic outputs:

- Abstract submission to BEFRED.
- Conference poster presentation or oral presentation enabling more widespread dissemination.
- Data obtained may be suitable for further analysis (beyond that undertaken by the student within their time frame) which may increase reliability and validity of any conclusions.
- Combining research from different students or repeated projects can lead to a data set suitable for publication; however validity and reliability between projects must be assured.

Potential Limitations:

- These are usually small-scale projects, and the research process is not fully supervised, therefore, standardisation, reliability and validity of the data collated could be questioned.
- Data analysis is selected by the student, with some guidance by the supervisor; therefore, it may not be the most suitable for the project data.
- Small populations can result in bias in interpretation, which means that the results may not be applicable to the wider population.
- Horses used are often those which are accessible and are often representative of College riding yards, this may not reflect the target market for products.
- Riders used within research are often those which are accessible and may not be representative of the target market for industry.
- Equipment used is often that which is accessible and not optimal for the project.
- Most HE institutions will not be able to undertake more invasive projects that involve techniques such as blood collection as they do not have a Home Office License.
- Students involved in research projects are very enthusiastic and may inadvertently discuss research within peer groups.
- Students and supervisors may not be experts in the technical equipment they are using for data collection but may be able to access support from peers or industry.

Potential Benefits:

- UG students are enthusiastic and have to work to a relatively short pre-set time frame, which can promote completion of your project relatively quickly.
- There are opportunities for collaboration between students within institutions and from different institutions, which can allow data to be pooled and facilitate completion of larger scale projects. Contact AESE if you are interested in such a project.
- Often it is the most proactive students who will be put forward for external collaborative work. They may wish to pursue a career in your industry sector; therefore, they may be more likely to invest significantly in your project.
- HE Institutions have access to a wide network of experts and can often bring in other industry or academic experts for additional guidance or to access equipment to facilitate project completion.

Student expectations:

- Help and support with their project and completing it.
- Free product or equipment to support their study.
- Financial support for travelling if applicable to their project.
- Access to horses, riders etc. if applicable to their project.
- Key goal is to pass their dissertation with a good grade not necessarily to publish or disseminate their results.

Research in partnership with Postgraduate students

Postgraduate (PG) students have normally already undertaken an undergraduate dissertation project so have developed some basic research skills. There are a number of postgraduate courses that integrate a research project, including a taught Masters, research-based Masters and Doctorates by research (PhDs). In a taught Masters, students usually complete a research project that amounts to approximately a third of their course, whilst a research Masters programme has a higher research project component equating to two thirds of the assessment for the programme. Masters programmes are normally completed in one or two years for a full time student or two to four years for a part time student. Taught Masters courses are often associated with equine science or a subject area within equestrianism e.g. equitation science or equine business management and the research thesis allows the student to specialise in an area of their interest. In contrast, research Masters are based on a research idea that either the student proposes or the institution advertises for applications; in each scenario the student has to demonstrate their capacity to achieve in order to be recruited on the programme.

PhD study is even more research focused and often comprises a number of linked research investigations in a distinct subject area, which may have been proposed by the student or advertised by the institution, often in partnership with, or funded by, industry. Full time PhD students normally study for three to four years with the final year predominately involving writing up their final thesis whilst part time students can take four to seven years on average to complete. Both Masters and PhD students are supervised during their research but the expectation is that they will drive the process more than an undergraduate student and through the course of their programme will become more autonomous and capable of 'owning' all aspects of the research process.

What to expect from a postgraduate research partnership?

Study size:

- PG research projects are larger scale projects than undergraduate dissertations; they tend to be conducted over longer timeframes and are expected to be conducted at a higher academic level.
- Students should have a better understanding of the research process and their research tends to be more specific and focused than at undergraduate level.
- Students on a research based PG programme will be required to demonstrate their capacity to plan, undertake and disseminate research, as well as focus on one research topic or a series of linked research

questions. As a result, the study size and population is selected to ensure validity of the study, with guidance from the supervisory team and following review of the current literature.

Supervision:

- PG students are supervised by a team of experienced academic staff who will each bring a specialism to support the student. The supervisors facilitate the research process and encourage the student to 'own' their work.

Research input:

- The student's thesis should establish that they have developed expertise in a niche subject area in which they have chosen to research. There is still scope for input into planning stages and developing the research question or hypotheses from the supervisor and industry collaboration but the student needs to demonstrate their capability as a researcher.
- The supervisor will normally approve the project unless there are ethical considerations; if these arise the project will need to be referred to the institution's Ethics Committee for approval; this can take 3-6 weeks to complete.

Finances:

- Many PG courses offer students a stipend, industry partners may make a financial contribution to this or allocate a research grant that could offer financial support for the project, or provide support in kind e.g. access to equipment, horses or facilities or fund their development e.g. conference attendance to present research.
- HE institutions will provide PG students with access to equipment and resources to facilitate project completion but again there may be competition for access at peak study times. At this level, students are often permitted to take equipment off site to facilitate data collection.

Timeframe:

- Time allocated for completion of the research component on the course will depend on the programme of study:
    - Taught Masters: six to 12/15 months
    - Research Masters: 12 months to two years
    - PhD: three years plus
- Taught Masters courses usually follow traditional academic enrolment timescales with September or October start dates and a summer/autumn conclusion. Research Masters and PhDs may have a defined start date but often are recruited on a rolling basis.
- The increased length of PG programmes can facilitate longevity in data collection e.g. across seasons, across years.

Realistic outputs:

- PG students are encouraged to engage in dissemination of their research; this is often in the form of conference presentations. The extended length and specificity of the research project in PhD study increases the potential for publication in peer reviewed journals and PhD students are actively encouraged to publish.
- There is scope for the results of these studies to be disseminated widely via various knowledge exchange mechanisms including, lay magazines and conferences.

Potential Limitations:

- Unless the HE institution has, or can obtain, appropriate Home office licences they will not be able to undertake more invasive projects that involve techniques such as blood collection.
- Students and supervisors may not be experts in the technical equipment or discipline they are using for data collection.
- Access to equipment and study populations can limit the scope of the research undertaken; many institutions will utilise resident equine or rider populations, which can limit repeatability.
- College horse populations are often limited to general purpose horses, may be older and riders are often at variable standards.
- Finances may also limit access to study populations.
- Students involved in research projects are very enthusiastic and may inadvertently discuss research within peer groups.
- The quality of the research is dependent on the quality of the student and their supervisory team.

Potential Benefits:

- PG students generally work as part of a research team and often have access to other students to help them complete their research, which can help support larger scale projects.
- Often it is the most proactive students who will be put forward for external collaborative work. They may wish to pursue a career in your industry sector; therefore, they may be more likely to invest significantly in your project.
- PG students will be working with experts in their field of study and this can add valuable input in to project design and interpretation.

Student expectations:

- Support with resources for the research project e.g. equipment, populations and facilities.
- Financial support.
- Input of expertise to support the project and with interpretation of the data.
- Support for dissemination of the results.
- Endorsement.
- Opportunity to engage in networking with industry.

Research in partnership with institutional staff members

Another option which may be available is to engage with a member of academic staff within a HE institution. HE staff members are required to be research active and as well as supervising undergraduate and postgraduate student research projects will often be working on their own projects in their specialist field. Research conducted in collaboration with staff can offer a more flexible partnership but it should be noted that it has to fit around the constraints of their academic responsibilities. Most universities and colleges include staff pages on their websites that illustrate their area of expertise, their publication record and breadth of knowledge exchange; these are often freely available for potential Industry partners to look at. However, it should be remembered that if you want to secure gold standard research conducted exactly to your specific requirements then the best option is via fully costed, contracted research.

Some other points to consider

Ethical Approval

All research undertaken in partnership with HE institutions will be required to secure ethical approval prior to the start of the research to ensure the health and welfare of the participants. This can take some time and should be considered during planning.

Confidentiality and Intellectual Property

Some research projects conducted in partnership with industry may involve new products or sensitive information; most institutions will have established systems which include confidentiality agreements to ensure that all partners are protected. Intellectual property is a legal concept that refers to the creation of work or invention perhaps a concept or design, or new piece of equipment. Again HE institutions should have documentation in place which can be implemented to enable ownership to be agreed prior to commencing a research partnership. Equally, industry partners may ask for confidentiality to be assured for the duration of the project or in certain circumstances limit the publishing of any data collected; it is advised that these areas are discussed and agreed by all parties involved prior to starting the project. In addition to ownership of Arising IP and how the results of the project can be published, these agreements will also identify how Background IP belonging to each of the parties can be used and whether there are licencing conditions to use of the Background or Arising IP.

Legislation and Product Use

It is essential that all parties involved in collaborative research discuss and agree working boundaries for the practicalities of the project. This may include confidentiality as noted above, but also whether the product is referred to by its name or not, whether it is licenced for use in the context of the study, and whether it is being used in accordance with manufacturer's guidance etc. It is also worth noting that often students will design their own research projects and use existing products and equipment within them. It is good practice in these situations for supervisors to direct their students to contact companies involved and inform them of the projects being undertaken. Establishing a specific contact for the industry partner and the HE institution is good practice, as these can be contacted directly if any problems occur.

Communication and Marketing

Establishing effective and transparent communication channels for all parties involved in a collaborative research project is essential for success. It is highly recommended that a research contract is drawn up and agreed by all parties, and that meetings, emails and so forth, integrate the industry partner, supervisor / team and the student/s involved. Establishing a specific contact for the industry partner and the HE institution is good practice, as these can be contacted directly if any problems occur.

HE institutions may have limitations regarding how their brand can be used within any subsequent industry marketing material which uses data and results collected during the joint research. Equally, industry partners may wish to retain anonymity within student write-ups. Such aspects need to be agreed before the project starts. Agreeing clear expectations at the start of the project can prevent problems such as data inadvertently entering the public domain.

Industry partners may also want to control use of their brands and company name in publicity releases, websites, marketing materials etc. whether or not the marketing material uses data or results collected during the joint research.

This document can be found on the AESE page on the BEF website by clicking here.

General Disclaimer

This booklet was published in 2015 and updated in 2016 and is intended only as a general guide. It is not intended to be exhaustive nor to provide advice and should not be relied upon as a substitute for taking specific legal or other advice.

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Please note:

This document is designed to offer guidance for industry partners considering entering into a collaborative research agreement with a HE institution. BEF advises potential industry partners and individual institutions to discuss any potential collaboration and formulate a research contract prior undertaking any joint projects.