

CASE STUDY

Putting Student Partnership and Collaboration Centre-Stage in a Research-Led Context: A Case Study of the Summer Undergraduate Research Fellowship Programme at Xi'an Jiaotong-Liverpool University

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ABSTRACT

In this case study, we evaluated the Summer Undergraduate Research Fellowship (SURF) initiative at Xi'an Jiaotong-Liverpool University (XJTLU), an extracurricular programme that focuses on academic staff-student partnerships and collaborations. While not directly integrated into university degree programmes, SURF provides students with the opportunity to develop practical research skills related to knowledge they have acquired in class. Participating students receive an authentic research experience, which involves collaboration on research projects with academic staff. All students are required to present results of their projects at a public poster presentation event organised by the university. This case study is a partnership between Academic Enhancement Centre (AEC) staff, who organize and run SURF, SURF students, and a lecturer (M.B.N. Kouwenhoven), and it presents a reflection on their experiences of the SURF programme, and in particular on the notions of partnership and collaboration and the potential tension between those two concepts.

KEYWORDS

Summer Undergraduate Research Fellowship (SURF), partnership, collaboration, extracurricular programs, student engagement

Student engagement has become increasingly important in higher education in recent years. The idea is that engaged students will learn better and have a more rewarding learning

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experience, which will ultimately lead to better results for all involved, including better grades and higher retention rates (Quaye & Harper, 2015). However, engaging students can be difficult and creates much anxiety amongst academics about *lack* of student engagement, especially in a transnational institution like XJTLU, where teaching across cultures is a potentially complicating factor (Jin & Cortazzi, 2011). One initiative designed to engage students at XJTLU is the Summer Undergraduate Research Fellowship (SURF) programme, an extracurricular programme at XJTLU that focuses on academic staff-student collaborations and/or partnerships and the potential tension between them.

In this article, we present a case study on the SURF initiative in the form of an evaluation of, and reflection on, the programme. The ideal outcome for SURF is for a genuine partnership to develop from the initial setup of groups of students collaborating with a supervisor. However, in some cases the hierarchical supervisor-supervisee relationship remains firmly in place, while in others, a more equal partnership develops. For this case study, SURF students were invited to collaborate with the Academic Enhancement Centre (AEC) staff who organise SURF, and a lecturer who participated in the SURF programme as a supervisor and helped to guide the compilation of this case study. We explore what it means to collaborate on a project if that project is already defined from the start by the supervisor. These students are credited as co-authors on this case study, which suggests a partnership, even if the parameters of this writing project were also predefined. Thus, we explore the affordances, limits, and the potential of these partnerships. The particular context of a transnational university in China is an important aspect of this case study, as cultural and crosscultural elements potentially have a significant impact on how partnerships are perceived and how they work in practice.

THE POTENTIAL OF STUDENTS-AS-PARTNERS WORK AT XJTLU

Students-as-partners work offers a range of potential benefits, particularly in relation to student engagement. For example, if students are approached as partners, then this potentially invites a sense of belonging to a community of practice (Wenger, McDermott, & Snyder, 2002). It breaks down some of the barriers between academics and students, and opens the way towards a community of learners, based less on hierarchical relationships and more on learning partnerships with mutual benefits. Cook-Sather, Bovill, and Felten (2014, pp. ix-x) note that such partnerships are rooted in three foundational beliefs:

- Students have insights into teaching and learning that can make our and their practice more engaging, effective, and rigorous.
- Faculty can draw on student insights through studying and designing teaching and learning together with students.
- Partnerships between students and faculty change the understandings and capacities of both sets of partners—making us all better teachers and learners.

Cook-Sather et al.'s emphasis is primarily on the reciprocal processes of teaching and learning, whereas SURF is more focused on students' development as researchers. Thus, the

partnerships between academic researchers and students in this context have an initial “master and apprentice” element. However, ideally this eventually develops into a genuine partnership in the process of working on the SURF project as a team. One supervisor identifies different phases in this respect: “As a supervisor, I had now changed my role to that of a scientific partner.” The research outcomes of some SURF projects are conference presentations co-developed with students and research publications co-authored with students. Cook-Sather et al.’s (2014) discussion of the fundamentals of partnerships is highly relevant here, as genuine partnerships make us potentially all better researchers and learners. This is even more relevant at XJTLU, which presents itself as a “research-led” university. Healey, Flint, and Harrington (2014) make a similar key point:

Partnership in learning and teaching represents a sophisticated and effective approach to student engagement because it offers the potential for a more authentic engagement with the nature of learning itself and the possibility for genuinely transformative learning experiences for all involved. (p. 55)

In their model of “students as partners in learning and teaching in higher education,” Healey, Flint, and Harrington create different, overlapping areas of “partnership learning communities,” the most relevant being “subject-based research and inquiry,” which involves “co-researching and co-inquiring” (2014, p. 25). They further note that partnership puts reciprocal learning at the heart of the relationship, which involves trust, risk, interdependence, and agency. This challenges us to consider the level and extent of particular partnerships, i.e., between research supervisors and students in SURF projects. Trust and risk are key here because they are a prerequisite to affording students agency in such a partnership. Thus, trust and risk can be explored as measures of levels of partnerships in the context of SURF. A strong partnership implies breaking down the binary opposition of teacher and student to move the relationship beyond an apprenticeship model towards a partnership. This may be challenging in a Chinese context, where the power differential between teacher and student is generally greater than that in a UK context (Jin & Cortazzi, 2011). Agency thus becomes central to the notion of partnership (Zhao, 2011), and relates to how much influence students have in the decision-making around SURF projects. This is echoed by the partnership process of writing this article, whereby students were asked to contribute as partners, but its structure and topic had already been decided by us as academics. The case study that follows reflects on the potential of partnerships and their limits.

SURF IN CONTEXT AT XJTLU

XJTLU, based in Suzhou, China, is a joint venture between Xi’an Jiaotong University in China and the University of Liverpool in the UK. XJTLU is the largest Sino-foreign university in China, with around 8,000 students on campus and 10,000 students in total, and offers dual degrees with English as the medium of instruction. XJTLU’s espoused approach to teaching and learning is research-led teaching. As an extracurricular programme, SURF provides

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undergraduate students with the opportunity to develop practical research skills related to knowledge they have acquired in class (Healey, Jenkins, & Lea, 2014). Participating students receive an authentic research experience, which involves collaboration on research projects with academic staff and presenting results at a public poster presentation. At the end of the event, a jury comprised of faculty members chooses winners from each faculty and overall winners, and students also elect their choice of best poster.

XJTLU initiated the Summer Undergraduate Research Fellowship (SURF) for all departments in 2012, when 36 research projects from eight different departments were carried out during the summer by undergraduate students in Years 1 to 3¹, under close faculty supervision. Thus, partnership is not an explicit expectation but rather depends on the extent to which supervisors allow for a partnership to develop. From 2013, the university has allocated half a million RMB (around \$75,000 USD) for around 70 SURF projects and 150 student fellowships every year (Wilson, Wu, Xie, Johnson, & Huijser, 2017). For some projects, one student may work closely with one supervisor, while for other projects, faculty members and students from different departments work together for up to ten weeks on projects that are interdisciplinary to varying degrees. Thus, there are different potential partnerships involved, and the level of agency students are afforded depends on how much faculty members trust students, and how much risk they are willing to take in this process.

SURF starts every year at the beginning of the second semester by calling for proposals from all faculty members. Once a list of SURF projects is finalised, an announcement is made for all Year 1 to 3 students to apply, and students are chosen by supervisors through a competitive selection process. During the SURF period, social events are organised for SURF students, as well as a formal workshop about developing a public academic poster presentation. From 2012 to 2016, more than 600 hundred XJTLU students have worked on research projects over the summer, making the SURF application process more competitive every time.

Part of the attraction of SURF is the opportunity to forge a partnership with mutual benefits for faculty members and students as co-researchers. Whether such partnerships are actually established, or even desired, or the collaboration stays locked into a supervisor-supervisee model is the focus of the following reflections and discussion.

SURF STUDENT PERSPECTIVES

The four student co-authors of this article were all involved in SURF projects. Three were part of the same SURF project in Astrophysics, while the fourth worked on a Business-related data analysis project. The Astrophysics project investigated the efficiency of the Moon and Jupiter in keeping the Earth safe from catastrophic impacts caused by asteroids and comets. The Business project focused on a new continuous monitoring model for automated auditing using specific data analytics software.

The process around the students' collaboration on this article consisted of an initial call for expressions of interest during a face-to-face orientation event for SURF. Students were asked to express their interest in collaborating on an article about their SURF projects, and were then emailed a set of points to consider in their written reflections. These related first to

what they had learned during their SURF experience, and second, to their involvement in defining and shaping the project they would be working on. We wanted to explore to what extent the projects were open-ended, allowing for input in how the team went about addressing them. Finally, they were asked to reflect on partnership and whether there was a difference between partnership and collaboration. The writing process on this article was similar to the supervisor-supervisee relationships of the SURF projects in that there was a power differential, and while partnership was the ultimate ideal, there were important differences in experience and expertise. Thus, it may be more accurate to call the writing process a collaboration rather than a partnership in the sense that the students contributed, but the process was managed by a senior academic.

Learning experiences

The key learning experience in all student reflections related to the rewards of working in groups as partners with both supervisors and other students, and in particular the difference between their SURF project and other classroom experiences. These reflections are presented in the following sections as quotes from the reflective writing pieces written by the co-authors of this article.

I got a sense of real research since the question we investigated did not have a clear answer, which is completely different from a question in class or in an exam. In this way, we got used to facing failure and learning how to deal with new problems, which meant looking back to check the procedures or trying to find new methods.

The project improved my interpersonal skills and self-directed study skills. The division of work improved our efficiency, as it clarified what was needed. However, it was not a simple case of dividing the workload; rather we communicated on a daily basis with all members of the group to present results and adjust our approach.

The most important skill I learned was how to communicate. Studying alone is ineffective in research; what is needed is speaking out about your ideas and commenting on others' ideas.

Interestingly, all of these experiences relate to collaboration and working in teams (including in partnership with the faculty member to varying degrees), which is sharply contrasted with "regular" learning experiences in their degrees. Indeed, it relates directly to what Healey et al. refer to as "the potential for a more authentic engagement with the nature of learning" (2014, p. 55).

Shaping the project

As we previously noted, the project topics were proposed by faculty members who, on paper, had a supervisory role, in a similar way as a Masters or PhD student has a supervisor.

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However, in practice, the extent to which supervisors “partnered” with students in shaping the project and the approach varied. While some presented very clearly defined projects to the students, others allowed for much more student input to shape and reshape the project scope, thus leaning more towards a genuine partnership. The Astrophysics-based project was a good example in this respect.

I think it does not matter who defines the project, as long as every team member is interested in the topic. The advantage of the supervisor proposing the topic is that he is a professor who knows which topic is valuable for student to engage in.

Even though the project had already been defined, it was not a question for which we needed to find a “solution” (as in an exam). Rather, the more important mission for us was to find the “question.” The supervisor inspired and guided us in this respect.

I do not think it matters whether the topic is determined by someone else or by me, as long as the topic itself is meaningful. The topic was also “mysterious” to the supervisor. Therefore, motivated by curiosity, we started our explorations. No explicit answers were “waving at us,” which is exactly the meaning of research.

Partnerships are of course about power to some extent, but also about building trust and respecting each other’s ideas. In terms of power differentials, there is a clear distinction from the outset between the roles of supervisor and students in SURF projects. Respect for the supervisors’ expertise and authority is clearly acknowledged by the students here, as expected, but can be seen as a challenge if genuine partnership between equals is the ultimate goal. However, some of these reflections suggest that partnerships can develop despite the different degrees of power between supervisors and students; that the topic was also “mysterious” to the supervisor suggests, as Healey, Flint, and Harrington (2014) discuss, “a partnership learning community” involving “co-researching and co-inquiring.”

Partnership and collaboration

At the start of students’ SURF journey, we explained to them the concept of students-as-partners and sought expressions of interest to partner in the writing of this article. As noted, the student co-authors were asked to explicitly reflect on the notions of partnership and collaboration, and whether they felt they were operating like students-as-partners in their SURF projects, leading to some interesting responses about the notion of partnership.

I think partnership has a closer and more equal relationship between students and supervisor. This relationship will give students more freedom to deal with the research and propose their own thoughts about the topic. In our SURF project, instead of following instructions given by the supervisor, he was more like an organizer of our teamwork.

The partnership with my group members as well as my supervisor encouraged me to present my own ideas. Partnership offers me the motivation and confidence to explore more. At the same time however, collaboration does mean being a “helper” for certain tasks.

I do not regard my supervisor as a “partner.” I am grateful to professors who sacrifice their time to educate me. I do not think any people can view their supervisors as partners before (or even after) they get a PhD.

As part of the process, my [student] partner and I had a weekly meeting with our supervisor, during which we reported on what we did during the last week, and compared the current schedule with the initial plan.

The first two student co-authors felt a clear sense of partnership with their supervisor in the project, and both commented on how motivational that was for them, creating “the possibility for genuinely transformative learning experiences for all involved” (Healey, Flint & Harrington, 2014, p. 55). In contrast, the third student co-author did not think it was appropriate to consider supervisors (or teachers) as partners, which more closely aligned to more traditional ideas of teachers’ roles in the Chinese educational context (Jin & Cortazzi, 2011). The fourth student co-author was less explicit about this, but their response hints at a similar power differential between supervisor and students.

CONCLUSION

This paper has explored to what extent SURF projects were characterised by partnerships between students and supervisors, and the potential benefits of such partnerships and collaborations. The writing of the paper was approached as a partnership in itself, if a challenging one. The analysis of this case study suggests that partnerships in the context of programmes such as SURF have important benefits for students involved in them. Particularly in a Chinese higher education context, it introduces students to a completely different way of learning, which potentially builds confidence and important research skills. Our case study further suggests that these benefits may be enhanced if there is a degree of partnership between students and SURF supervisors. However, the terminology around this appears to be less important than the actions of the supervisors. Overall, there is a range of approaches to supervision in programmes such as SURF, some of which come very close to partnerships between students and supervisors, while others lean towards a more traditional power distance relationship. It depends on each cultural and educational context what the best balance is in developing mutually beneficial partnerships.

NOTES

1. XJTLU has four-year degree programmes, and due to a government-mandated Final Year Project (FYP) that every student must complete as part of a Chinese degree, final year students do not participate in SURF. Unlike the usual three-year UK degree, the four-year degree includes a Foundation year with a strong focus on English. XJTLU students also have the option of completing their first two years at XJTLU and their final two years at the University of Liverpool.

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REFERENCES

Cook-Sather, A., Bovill, C., & Felten, P. (2014). *Engaging students as partners in learning and teaching*. San Francisco, CA: Jossey-Bass.

Huijser, H., Wilson, J., Wu, Y., Qiu, S., Wang, K., Li, S., Chen, W., & Kouwenhoven, M. (2019). Putting student partnership and collaboration centre-stage in a research-led context: A case study of the Summer Undergraduate Research Fellowship programme at Xi'an Jiaotong-Liverpool University. *International Journal for Students as Partners*, 3(1). <https://doi.org/10.15173/ij sap.v3i1.3497>

- Healey, M., Flint, A., & Harrington, K. (2014). *Engagement through partnership: Students as partners in learning and teaching in higher education*. York, UK: Higher Education Academy. Retrieved from https://www.heacademy.ac.uk/system/files/resources/engagement_through_partnership.pdf
- Healey, M., Jenkins, A., & Lea, J. (2014). *Developing research-based curricula in college-based higher education*. York, UK: Higher Education Academy. Retrieved from https://www.heacademy.ac.uk/system/files/resources/developing_research-based_curricula_in_cbhe_14.pdf
- Jin, L., & Cortazzi, M. (2011). More than a journey: "Learning" in the metaphors of Chinese students and teachers. In L. Jin & M. Cortazzi (Eds.) *Researching Chinese learners: Skills, perceptions and intercultural adaptations* (pp. 67-92). Houndmills, UK: Palgrave Macmillan.
- Quaye, S. J., & Harper, S. R. (Eds.) (2015). *Student engagement in higher education: Theoretical perspectives and practical approaches for diverse populations* (2nd ed.). New York, NY: Routledge.
- Wenger, E., McDermott, R., & Snyder, W. (2002). *Cultivating communities of practice*. Boston, MA: Harvard Business School Press.
- Wilson, J., Wu, Y., Xie, J., Johnson, D., & Huijser, H. (2017). Inspiring learning through research and inquiry: The Summer Undergraduate Research Fellowship (SURF) at XJTLU. In B. Carnell & D. Fung (Eds.), *Developing the higher education curriculum: Research-based education in practice* (pp. 45-59). London, UK: UCL Press. Retrieved from <http://discovery.ucl.ac.uk/10032889/1/Developing-the-Higher-Education-Curriculum.pdf>
- Zhao, Y. (2011). Students as change partners: A proposal for educational change in the age of globalization. *Journal of Educational Change*, 12(2), 267-279. <http://dx.doi.org/10.1007/s10833-011-9159-9>