3. Making it work: critical success factors in implementing Careers Registration post-hiatus

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Introduction

Careers registration is an approach used within many higher education institutions (HEIs) to gather data from enrolled students regarding their career development and journeys (Gilworth, 2023a). Initiated at the University of Leeds in 2012, the careers registration (CR) process is used to collect data on students' current careers readiness and other employability related measures in the majority of UK HEIs (Gilworth, 2023b). However, gathering the data does not, by itself, create any benefit for either students or organisations (Kandiko Howson, 2019); rather it is the timely use of the data to support decision making that creates the benefit (Cobb, 2019).

Practical advice exists for organisations seeking to implement careers registration for the first time (Cobb, Gilworth & Winter, 2019). In contrast, the research reported below focused on HEIs that have experienced a "hiatus" between initiating CR and realising the full value of the data, a situation that a number of HEIs have experienced. The need to make use of the data for student benefit has been a theme throughout the literature (Gilworth, 2019; Winter, 2019) and there is

now a concern that, unless the data is used effectively, access to the data might be lost (Gilworth, 2023b).

This report is based on a professional research project conducted in summer 2023 which aimed to identify the critical success factors (CSFs) for moving beyond a hiatus. By examining the conditions necessary for the adoption of CR, the research aimed to provide practical insights for organisations looking to extract more value from their existing CR data.

Methodology

This exploratory, qualitative study was conducted within two case study institutions which had both experienced a hiatus in CR utilisation. The HEIs selected had a number of similarlities: both were post-'92 universities in the north of England; both offered a mix of vocational and academic courses; and their Graduate Outcome results were similar (The Complete University Guide, 2023). However, there were key differences in size, timing of CR re-introduction, and corporate strategy. Institution B had approximately twice the number of students and was further advanced with implementation of CR. In addition, careers and employability was a key component of corporate strategy at Institution B and the CES had more than twice the average careers service staff:student ratio (AGCAS, 2021). By contrast, careers and employability was a less explicit strategic priority at Institution A and the CES had approximately half the average careers service staff:student ratio (AGCAS, 2021).

Eight interviews were conducted in total with 3 respondents from institution A and 5 from institution B. Whilst role titles differed between organisations, the Head of Service, at least one Faculty facing Careers Consultant and at least one person closely involved with the data were included in each case. Unfortunately, short timelines meant that it was not possible to include respondents from other parts of the organisation. It is important to bear in mind that the research was not intended to be representative or comprehensive, but rather to provide a basis from which to work.

Findings

Clear themes emerged from the research resulting in the identification of six critical success factors (CSFs):

- Timely, reliable and flexible access to the data
- Resource to analyse the data
- Internal (CES) confidence with the data
- Organisational credibility of the information
- Organisational demand for the information
- Corporate strategy prioritising employability and student outcomes

Each of these CSFs is addressed in detail below.

Whilst they are identified and described individiually, it is important to note that there are significant linkages between them. Drawing from the field of systems analysis (Jackson, 2019), an HEI could be considered a complex institutional system within which the CSFs form multiple, self-reinforcing loops. Thus, a positive change in one CSF initiates a cycle of positive changes in other CSFs ultimately reinforcing the initial improvement.

Timely, reliable and flexible access to the data

Both institutions stressed the importance of being able to access the data in a timely, reliable and flexible manner. One key benefit of CR is that it provides information about current students and, therefore, the opportunity for HEIs to adapt to the specific needs of their students in real time. The greater the delay between the data being collected and it being made available for use, the lower the benefit achieved. CR data's high response rate is achieved through inclusion in the annual enrollment process; however, this results in the CR data being collected and held centrally by teams for whom extracting CR data is often a low priority relative to statutory information. Achieving timely access to the data is fundamental to utilising CR effectively.

   The reliability of access to the data was also considered crucial. In one institution, the data was held in an unreliable system which created

a significant barrier to using the information, particularly in a resource constrained environment. Adding CR data to the main data platform ensured greater reliability at this institution.

Similarly, flexible access to the data was essential in enabling analysis and wider communication of the data and findings. Without it, analysis was challenging and limited to a small group of data experts. With flexible access, it was easier to interrogate the data to generate information and it facilitated sharing information with a wider group of colleagues whether within the Careers and Employability Service (CES) or across the organisation more broadly.

Although there are many potential systems solutions, these were seen to be less important than achieving the overarching requirement that access is reliable and flexible. In one case studied, a high degree of success was achieved with the manual extraction of data and population of dashboards for analysis.

Resource to analyse the data

The importance of having resource available to analyse the CR data was recognised by both institutions studied. However, they were at different stages of development during the research.

At institution B, an early decision was taken to invest in a dedicated data analyst role within the CES, which enabled the team to extract the full benefit from the CR data. The data analysis capacity has subsequently grown and now includes a team responsible for data analysis and for regular training to support the analysis skills of most members of the CES.

By contrast, institution A experienced organisational and personnel changes which removed key CR analysis skills and knowledge from the CES. The resulting small CES team had minimal resource to analyse the data, contributing to the hiatus, and the ongoing lack of resource continues to limit the benefit that institution A can extract from CR data. The CES team overcame these constraints by partnering with data analysis colleagues in other teams to make progress with CR data. Since the research was conducted, flexible and widespread access to the

data has been achieved enabling colleagues throughout the institution to analyse the data.

The advent of 'big data' and the drive to make use of it within HE CESs has challenged services to increase their data analysis capability and capacity, an issue reflected in the literature. Winter (2019) emphasised the need for careers professionals to be well versed in analysis and research skills but feared that "there is still a deficit in the confidence and capability of careers staff to deal with such data" (Winter, 2019, p.176). Evidence based practice and decision making is seen as essential for the effectiveness of the CES and for professional credibility of practitioners (Gilworth, 2019; Thambar, 2019). However, fewer than 40% of HEI CESs employ a data manager/analyst/coordinator/officer (AGCAS, 2021) and careers staff have relatively low levels of confidence in analysing and presenting data (Winter, 2018). This remains a significant consideration for organisations wishing to further exploit their CR dataset.

Internal (CES) confidence with the data
An initial lack of confidence within the respective teams contributed to the hiatus period as staff were unsure how to sensibly interpret and use the data. In both organisations, those responsible for initiating CR had moved roles resulting in little organisational memory of the intended purpose. The non-linear measurement scale used in CR in which students can move both forwards and backwards complicated the interpretation of results as it was not obvious how to define improvement. There were concerns about the reliability and consistency of the self-reported data. In addition, the link to outcomes such as Destination of Leavers from Higher Education (DHLE) or Graduate Outcomes Survey (GO) was not immediately obvious from the questions or analysis.

Increasing CES confidence with the data was critical to overcoming the hiatus in each organisation, although different methods were employed to achieve it.

Institution B, an early adopter of CR, addressed the analytical elements first. The team adapted the questionnaire to ensure that the data gathered was both actionable and reliable, and introduced CR-like questions to graduation documentation to gain a final measure of career

readiness. They conducted detailed analysis of the data to discover patterns and linkages and then focused on sharing the findings across the CES to ensure that the whole service was familiar with the approach and the findings.

By contrast, institution A was later in addressing the CR hiatus and gained confidence through learning from other institutions' experiences. Whilst lack of access and analytical resource limited the actionability of the full data set, the CES team instead developed confidence in the underlying career development model by involving students and other stakeholders in revising the framework for their specific needs.

Organisational credibility
In both cases, achieving organisational credibility of the data was critical to the adoption of CR. As outlined above, CR data might not be intuitive to interpret, particularly for those outside the CES, due to students' ability to "progress backwards". Additionally, the self-reporting nature of the data is different from the more objective measures typically used in management information. A further challenge is that the tool is designed for internal institutional use rather than inter-institutional analysis. Although this potentially restricts the comparability of findings and depth of data published there have been a number of shared projects, including the UK Careers Registration Learning Gain Project (Kandiko Howson, 2019), and a variety of publications on the data and on the career development model (Cobb, 2019; Gilworth & Cobb, 2017; Stanbury & Gilworth, 2024; Tapley & Gilworth, 2024) which allow for insights to be shared across the sector.

The study found several approaches which appeared to be effective in increasing organisational credibility: analytic robustness; socialising the underlying model; institutional endorsement; and academic leadership/ involvement.

Institution B developed and demonstrated analytical robustness, leveraging the work outlined above. The team ensured the reliability of the data by modifying the questionnaire to increase respondent consistency and actionability of the data, by tightly maintaining the comparability of questions over time and by collecting similar data at the point of graduation. To demonstrate the reliability of the data, analysis

was conducted showing the consistency of the results over time and to highlight the size and robustness of the data set. Further analysis of the associations between CR responses and GO metrics demonstrated the value of CR data in managing a key organisational performance measure.

Both institutions increased organisational credibility through socialising the underlying career development model. CES teams presented CR data and findings to multiple groups with interest in, and responsibility for, employability outcomes, raising the profile of CR and organisational confidence in the data. As mentioned above, the team at Institution A additionally involved a wide range of stakeholders in refining the underpinning career development model. This process increased awareness and buy-in to the overarching approach as well as improving organisational credibility.

Institutional endorsement further increased credibility. Institution B initially introduced CR as a performance metric within the CES and both institutions made CR data widely available on mainstream management information systems, endorsing the data within the organisation.

It is also likely that, in a university setting, the conduct of academic research into CR and the involvement of academics in the field confers significant credibility within the organisation. In institution B, CR was introduced as part of a national research project which would have required organisational commitment to CR data at the outset and subsequently conveyed credibility. Within institution A, increasing the academic profile of CR through leading and participating in research was perceived to enhance credibility within the organisation.

Organisational demand for data
Organisational demand for the data is essential to its widespread use and is particularly intertwined with the corporate strategy. Lack of organisational interest in employability and graduate outcomes was a fundamental barrier to CR use in both organisations and both cases experienced a period of trying to share the data with other parts of their institutions with little initial take-up. However, this changed once employability and graduate outcomes became strategic priorities, as CR data provided essential information for addressing these priorities.

The cases showed that organisational demand was most effectively generated and managed through building CR data into regular business processes, such as annual strategy meetings, course evaluations and validation and revalidation processes. Gilworth (2023a, p.459) describes the benefit of these "structurally facilitated" mechanisms for dialogue between CES staff and academics; and the challenges faced when business processes do not require a sharing of information.

Corporate strategy
The importance of strategic focus on graduate outcomes to the adoption of CR is evident in both cases, supporting the assertion that "the centrality of the direct relationship to institutional strategy cannot be overemphasised," (Gilworth 2023a, p.455).

In both organisations, the strategic drive to improve graduate outcomes led to an increased focus on CR as a source of actionable information. However, the differing timing and scale of strategic focus given to employability and graduate outcomes in the two cases studies is evident in the extent of CR adoption. Institution A's relatively recent focus on graduate outcomes resulted in the underlying CR model becoming more robust and prominent, and the data becoming widely available. The early strategic commitment to student outcomes made in institution B resulted in significant investment in the CES, and the adoption of CR as a key corporate metric embedded in business processes and part of the university vernacular.

Conclusion

Six CSFs were identified for overcoming a hiatus in adopting CR:

- Timely, reliable and flexible access to the data
- Resource to analyse the data
- Internal (CES) confidence with the data
- Organisational credibility of the information
- Organisational demand for the information
- Corporate strategy prioritising employability and student outcomes

It is possible to consider the CSFs through the perspective of EVR analysis which proposes that an organisation's environment (E), its values (V) or "the way business is done around here" and the allocation of resources (R) are intertwined (Gilworth, 2019). The external environment increasingly prioritised employability and student outcomes. Each organisation's values influenced how it initially responded, but ultimately the environmental changes created a strategic imperative to focus on employability and student outcomes, resulting in a changed allocation of resources. Over time, employability and student outcomes become established within ongoing business processes, creating new values (V).

This analysis captures the interrelationships between many of the CSFs: timely, reliable and flexible access to the data; resource to analyse the data; organisational demand for the information; and corporate strategy prioritising employability and student outcomes. Of these, corporate strategy would appear to be the most significant as it has a systematic impact on all the other CSFs and a critical impact on the adoption of CR data. It might be possible to influence corporate strategy, but the CES cannot determine the implementation of CR in isolation (Gilworth, 2023a). However, the cases studied show that it is not necessary to wait until strategic commitment has been achieved to take steps to overcome a hiatus period. In particular, being creative about access to the data and partnering with colleagues outside the CES have proved effective.

In addition, the study identified two CSFs not previously identified in the literature: internal CES confidence with the CR data and organisational credibility of the information. It is likely that these were revealed through examination of "hiatus" case studies and consideration of the specific barriers they faced. To overcome these barriers, the cases studied focused on developing an understanding of the data, interpretation and findings through either extensive analysis or learning from other institutions; this knowledge was then shared within the CES. They socialised the career development model with partners and stakeholders, sought institutional endorsement and enhanced the academic profile of CR. These CSFs, and the approaches described above, could potentially be addressed despite a lack of corporate

commitment to utilising CR and, as such, they might be useful for other "hiatus" organisations to consider.

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