Expanding How We Record and Report Learning: Exploring Employers’ Perspectives

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Abstract: This paper presents employers’ perspectives on how they make sense of students’ cognitive, non-cognitive, and technical ability utilizing data from resumes, academic transcripts, and various interview techniques. Employers’ perspectives on a skill-based transcript as a tool for hiring are also reported. The findings inform the design of future assessment and credentialing infrastructures, with the goal of expanding how knowledge and ability are measured and defined in higher education.

Introduction and theoretical framework

This paper reports on the first study within a larger effort to reshape undergraduate education in a U.S. research university around twenty-first century learning outcomes and problem solving, instead of traditional course sequences. The purpose of the study reported here is to understand the broader implications of this larger effort as it relates to the recruitment and hiring practices of companies likely to employ graduates of the proposed program. A key feature of this program is a shift from summative information such as letter grades and grade point averages (GPAs) to mastery-based assessment for learning. This summative information makes up the underlying and often-unquestioned infrastructure of what is considered “normative” in education (Star & Ruhleder, 1996). Additionally, research on skill assessment finds “potentially important non-academic skills” are not well understood through summative information (Stasz, 2001, p. 393) and research on hiring suggests summative information contributes to subjective evaluations of ability through processes of cultural matching (e.g., Rivera, 2012). How would shifting to mastery-based reporting of knowledge and ability affect the ways that companies identify and select potential employees from among college graduates? To address this question we interviewed recruiters and hiring managers (hirers) to understand how they currently make sense of the information they have about students and sought their perspectives on the challenges and opportunities of implementing a mastery-based learner record as an information tool for recruitment and hiring. By exploring new infrastructures for communicating about knowledge and ability, we hope to understand designs for assessment infrastructures that are better able to account for twenty-first century learning outcomes rather than “master narratives” of school success (Penuel, 2019).

Methods

We recruited twelve participants from organizations that employ graduates of an existing pre-professional bachelor’s degree program in a U.S. research university. Participants were selected to represent a broad range of organizational types and represented consulting, financial services, manufacturing, and consumer goods and services companies. Recruitment, interviews, and analyses were conducted iteratively, and recruitment proceeded until it was felt that no new information was being gained.

Interviews were conducted via videoconference, lasting roughly one hour. Topics focused on: (1) The participant’s position within their organization, (2) The stages of the hiring process in their organization, (3) The factors shaping their approach to recruitment and hiring, and (4) The specific information sought at each hiring stage. At the end of each interview, participants were presented with an example of a comprehensive learner record (CLR) and asked for their reaction and thoughts about what role(s) it could play in their hiring process. In recent years, CLRs have emerged as an information tool for representing mastery-based learning outcomes (Shendy et al., 2019, January 20). The CLR presented to hirers represented learning outcomes in terms of complex cognitive, interpersonal, and intrapersonal skills rather than grades or test scores.

All interviews were transcribed and coded using content analysis and grounded theory to reduce the data to emergent themes and patterns. Interview transcripts were reviewed until no additional themes were found. Findings are represented as participants’ experiences with applicant evaluation and educational information within the labor market for entry-level positions.

Findings

Participants indicated hiring is supported by the establishment of talent pipelines – trusted recruitment infrastructures that can include formal partnerships with academic programs and instructors, informal meet-and-greets, and recruitment fairs. Decisions on where to establish pipelines are informed by historical data on current
employees, institutional reputation, and curricula. This indicates hirers are looking for scalable ways to develop talent pipelines but may rely on potentially subjective insights into knowledge and ability when deciding where to establish them.

In terms of how summative information is used in hiring, hirers indicate they use summative information as a solution to a data management problem - the sorting and screening of large volumes of applications. The perception that transcripts have poor informational value also often leads to practices of contextualizing information to understand applicants’ knowledge and ability; a common example included looking at grade trends to determine if a student was competent in a subject. Interview techniques such as case studies and technical assessments were generally more trusted as a means of understanding knowledge and ability. Case study challenges provide a way of “seeing” cognitive skills in action such as problem solving or critical thinking. A student’s reflection on their work portfolio provides an opportunity to demonstrate metacognitive skills and familiarity with a community of practice. While these interview techniques can have a significant impact on a hiring decision, they are not employed until after students have been screened through a review of their resumes or transcripts. Hirers want better representations of students’ knowledge and ability as they believe many potentially qualified applicants are screened out of the application process based off of the information contained in their transcripts and resumes.

Reactions to the CLR presented to the participants were generally positive. Participants saw them as useful for presenting verified claims of a student’s knowledge and ability and efficiently finding the information they looked for when evaluating applicants. One participant likened them to a LinkedIn page, but with the added benefit of being verified by the college. This demonstrates that new representations of students’ abilities are unlikely to be utilized without verification, a key role that colleges can play. Participants who already review portfolios of student work drew parallels between portfolios and CLRs. This is listed as an opportunity because it demonstrates that practices required to review CLRs already exist in some form already. One challenge that emerged in the interviews involves developing representations of complex behavioral skills that are interpretable and believable. For instance, how would evidence about “teamwork” be represented? However, the interview data also reveals that current approaches require hirers to make inferences based on limited information. One solution might be to conceptualize CLRs as a tool for comparing different strengths among applicants rather than as an objective ranking or scoring of twenty-first century learning outcomes.

Implications and conclusion

Innovations in higher education are more likely to succeed if learners perceive them as supportive of their goals; in the case of this work, the goal of finding a desirable first post-graduation job. By studying the explicit and implicit infrastructures that undergird learning and the representation of learning, learning scientists can provide evidence-based guidance for new forms of reporting systems and formats to better align our educational goals with the perceived needs of participants in the system. In the case of the current study, those participants are hiring organizations. The demand for students with twenty-first century knowledge and abilities is hindered by current representations of learning, which in turn hinder the design of educational programs and courses. Expanding the range of ways we describe and document learning also has implications for making educational systems and paths to employment more equitable. This study is a step towards more meaningful assessment and reporting infrastructures.

References


