

Defining learning gain in higher education – exploring the student perspective (0230)

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1. Background

Preliminarily defined as the progress students make in developing their abilities, skills, attitudes and competencies, *learning gain* remains a contested concept in the field of higher education. However, it is receiving increased attention from both higher education institutions (RAND, 2015; HEFCE, 2016), and government bodies. More precisely, the proposed Teaching Excellence Framework (BIS, 2016) suggests *learning gain* may become one of a range of indicators to be used for accountability purposes across the entire higher education sector in England. This raises two questions regarding *learning gain*: 1) how it is defined, and what conceptual framework is most useful for understanding the gains in learning that occur during higher education; and 2) how can this be translated into a measurement instrument that captures students' gains in learning over time.

2. Project and Paper Aims

Within this context, it is essential to unpack the concept of *learning gain*, and to ascertain what kinds of measurement instruments are most appropriate for capturing *learning gain* for students in English higher education institutions. The research we report in this paper aims to do precisely this, as part of a larger body of work (LEGACY – Learning and Employability Gain Assessment Community). Our project, *Measurement of learning gains in higher education across disciplines* aims to identify the core dimensions of student learning gains across different disciplines and develop a measurement instrument that captures these dimensions. It will establish the validity, reliability and usability of the developed measurement instrument for student learning gains across different disciplines, and produce new scientific knowledge about the longitudinal development of student learning gains throughout higher education in different disciplines.

Given the potential emphasis on students' views as part of the proposed Teaching Excellence Framework, it is important to understand students' views and expectations of their *learning gain* during higher education. This present paper will therefore explore students' opinions about learning and *learning gain*. It will do so after introducing a conceptual framework developed specifically for this project.

3. Data and Methods

The paper reports on theoretical and empirical work. The empirical work took the form of semi-structured interviews with around 30 graduate and undergraduate students at different stages of their higher education careers, studying for one of four disciplines: Business Studies; Chemistry; English; and Medicine, in three Russell Group universities. The students each took part in an individual interview, whereby they discussed about their learning experiences and development, and were also asked to

complete a sorting task that involved them ranking a broad set of skills, abilities and competencies in order of their relevance for their own learning.

4. Preliminary Results

1.1. Conceptual framework

Following a review of the literature on *learning gain*, we propose a broad conceptual framework for the concept, which references the dimensions of non-subject-specific learning that are likely to be core to the student experience. Our framework arranges the knowledge, skills, competencies and abilities students can potentially make gains on during higher education into a matrix of four components and three cross-cutting dimensions, as follows. The components are: a cognitive component, focused on thinking abilities such as critical thinking; a meta-cognitive component that includes self-regulation, and learning-to-learn capabilities; an affective component encompassing attitudes towards specific subjects, and learning in general; and a socio-communicative component including aspects of belonging to social networks of learning, and communication skills. The cross-cutting dimensions reflect underlying elements that may play a role in any of the above components: the openness dimension captures students' open-mindedness, and their view of intelligence; the research dimension addresses issues of curiosity and attitude to knowledge; and the moral dimension focuses on the moral reasoning students may develop.

This framework provides a preliminary perspective on the definition of *learning gain*, as well as a departure point for decisions regarding its measurement over time. It requires empirical consideration before any such decisions can be reached, which we attempt to achieve by means of the interviews.

1.2. Interviews

When asked about their learning in general, students report that acquiring subject knowledge and the development of skills and abilities are inextricably linked and equally valuable. Students report making substantial progress on both, but in manners that differ between disciplines, especially in relation to the role of non-mandatory course components and extra-curricular activities in solidifying the content knowledge students acquire. We also observe that much of their skill and competence development is implicit, and does not necessarily take the form of stand-alone courses or modules. When explicit, students view their learning as strongest when content knowledge and skill development are integrated, followed-up, and consistent with their own personal goals.

Asked about the dimensions of learning which they deem most important, students identify critical thinking, communication skills, and time management, as well as curiosity, problem solving, and motivation to learn. Their understandings of these, and other dimensions, vary between students, and also between the four disciplines in our study; however, generally, we find that the elements of learning most relevant to students are consistent with both our conceptual framework and universities' espoused aims.

Importantly for decisions regarding the measurement of *learning gain*, we observe substantial amounts of variability in students' ability to reflect on their learning, and to identify the aspects which they deem most important, but a high degree of engagement with the topic throughout, and a clear indication from all our participants of the value of higher education to their personal development.

5. Conclusion

The preliminary results from the interviews-generated data appear to suggest that the elements of learning most relevant to students are consistent with our conceptual framework and reflect the expressed prioritisation of skills and abilities by many universities and the existing learning gain literature. These preliminary results warrant further investigation, particularly in relation to the potential prominence of student views as part of the proposed Teaching Excellence Framework. We therefore argue that for any measure of *learning gain* to be valid, it needs to: capture the learning elements and dimensions emerging from the theoretical literature and the conceptual framework; reflect students' views; and incorporate universities' declared aims.

6. References

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