

Exploiting Social Networks as a Tool to Improve Student Learning and Employment Opportunities: Evidence from a range of Masters Degrees (0246)

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Research background and objectives

The importance of relational networks in shaping learners' behaviours has been widely acknowledged in the education literature. Vygotsky's influential contribution (1978, in Fry, Ketteridge, and Marshall 2009), emphasising the importance of interactions in promoting learning is at the base of several theories of learning. A study on 250 MBA students (Baldwin, Bedell, and Johnson 1997) demonstrated how connectivity of learners is a factor affecting their grades, attitudes and perceptions. Similar results were found in a more recent study, focusing however on online learning (Russo and Koesten 2005). More in general social capital has been found as a relevant predictor of students' decision (Coleman 1988).

Social networks are also extremely relevant in securing a job (Granovetter 1973). As a consequence Universities are more and more expected to equip their students with social capital, now perceived a fundamental component of human capital (Useem and Karabel 1986; Baruch, Bell, and Gray 2005). Ensuring employability of graduates is important especially for Business School, where the tension between teaching "for" and teaching "about" business need to be addressed (Lucas and Milford 2009).

Employing a cross-disciplinary approach, this research contributes to this research domain. The personal networks of students enrolled in postgraduate programmes at the University of Greenwich were analysed and their structural properties associated with demographic and psychological traits of the participants to the study.

Data and methods

Given the focus of this research, social network analysis (Wasserman and Faust 1994) has been selected as the most suitable research paradigm to explore the personal networks of postgraduate students. More than 1000 questionnaires were sent to students registered in several programmes at the University of Greenwich. 175 answers were obtained; for this study however, we focus on only 41 respondents who correctly completed the network component of the questionnaire.

Network data were collected using a ego-network approach (Borgatti, Everett, and Johnson 2013). Three name generating (Marsden 1987) questions were used to elicit answers from students to identify people (alters) belonging to their personal networks. Specifically, using questions employed by Podolny and Baron (1997), mentors and advisors were identified. To these questions, another one to identify a core discussion network was added. Respondents could list up to 4 individuals for each question. To the list produced in this way the formal mentor, when relevant, was added. The students were then asked to provide some information about the other individuals cited (such as their gender or employment status), the nature of the relationship with them (duration, type, frequency). Finally the alter-to-alter relationship were mapped.

Personal networks obtained in this way were then visualized and their properties analysed. Specifically measures associated with their structure and composition were computed and their association with individual students' characteristics explored.

Preliminary results and future research directions

Analysis will be conducted at two different levels: comparing different categories of respondents and detecting associations between the characteristics of individuals and the social networks they are embedded in. We explore the interpretation of the network maps in terms of relative risk and institutional habitus theories.

Comparison across groups of respondents led to some preliminary results. 41 of the questionnaires were completed following the instructions provided and were analysed at this preliminary stage. A first investigation consisted in the comparison of the social networks of those students (19) with at least one parent holding a Higher Education (any university level) qualification with the ones of those participants (21) with parents not holding a university degree. When age and gender are analysed, respondents belonging to families with no university education seem to have a higher tendency toward homophily, i.e. to establish relations with other individuals of the same gender and in comparable age range. Also, respondents from families with no university education have more ties with academics and professionals compared to family and friends in their personal networks although the variation between the numbers in these three categories is not very significant. On the other hand, respondents with parents holding university degrees, have more ties with family and friends, followed by professionals and academics in their networks. While these results are preliminary at this stage, they seem to suggest different dynamics to seek advice and support based on the education level of the parents. Previous research based on relative risk aversion (Holm and Jæger 2005) already identified a relationship between attitudes toward education and the level of education of parents, showing the importance of including this factor in the analysis of learners' behaviours. More analysis at the group level will be performed, in order to identify distinctive traits of specific groups of students and the networks created by them.

Furthermore an analysis at the individual level will be performed. Specifically the association between the properties of the ego-networks, such as their density and size, and the students' personal characteristics and outcomes will be explored.

A future step in the project will consist in carrying out focus groups with the respondents, in order to obtain more information about these respondents, their academic success as well as their ability to find their desired jobs after graduation. Such a methodological approach is particularly useful in increasing the understanding of the meaning associated with the social networks analysed (Fuhse and Mützel 2011).

A similar research has the potential to suggest contributions at different levels. Practitioners in the education industry would benefit from insights of this study. Peer interaction is becoming progressively more important, also as a result of the growing use of technologies to support learning. As a consequence lecturers are now called to improve the quality of interactions and promote "meaningful" relationships between students (Woo and Reeves 2007).

From a theoretical point of view, the richness of the database and its unique interdisciplinary nature has the potential to lead to innovative findings by bringing insights from different disciplines together, leading to novel results in a fast changing environment.

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