SOCIAL CAPITAL DEVELOPMENT STRATEGY AND COLLABORATIVE KNOWLEDGE CREATION IN HIGHER EDUCATION: THE UK AND TURKEY

N. Mikhaylov¹, E. Beaumont², I. Fierro³

¹ Pontificia Universidad Javeriana, Cali (COLOMBIA)
² The University of Derby (UNITED KINGDOM)
³ UEES (ECUADOR)

Abstract

The paper presents the second phase of international (three countries) study that explores the influence of social capital and personal learning networks (PLN) development approaches utilized by international students in the multicultural learning environment and the types of the social and academic networks they develop. It also addresses the influence of learners choice on their collaborative knowledge increase, in particular, the knowledge related to preparation for international careers. A comparative analysis has been conducted within three international programs (in Turkey, Ecuador, and the UK) that offer international education in the English language. The paper presents the preliminary results of a comparison in two locations – Turkey and the UK. The study applies the concepts of collaborative knowledge development, social capital, and social networks. It uses the constructivist grounded theory [1] to uncover the process of social capital and collaborative knowledge creation. Based on the data, collected through semi-structured interviews and analyzed through dimensional analysis [2]; [3], an updated process model is developed. The model takes into account the core social identity of the learner, and the stability of this identity, as well as the existing and emergent social, personal and institutional learning ties, built on social capital. An additional goal of the study is to uncover the overlapping social and personal learning networks International and local students participate in and develop, to trace the knowledge sharing routes and to pinpoint knowledge creation hubs in these networks. While we are not proposing the final theoretical model until the completion of the full cycle of the continuous comparison analysis process, it appears that the learners who are engaged in multi-dimensional and loosely connected [4] personal earning networks (PLN) [5] characterized by multiple networks consisted of weak ties and who utilize problem-solving models of knowledge creation are more likely to become cross/interculturally competent and are more likely to be prepared for global careers.

Keywords: social capital, PLN, collaborative learning, networking development, knowledge development, international students, higher education.

1 INTRODUCTION

The paper presents the second phase of international study that explores the influence of social capital and personal learning networks (PLN) [5] development approaches used by international students in multicultural learning environments. It also addresses the influence of the types of social, situational and academic networks, which learners build and participate in, on their collaborative knowledge and cross-cultural competence development, in particular, on preparation for international careers [6]. A comparative analysis is conducted within three international programs (in Turkey, Ecuador, and the UK) that offer international education in the English language. The paper presents the preliminary results of a comparison in two locations – Turkey and the UK. The study applies the concepts of collaborative knowledge development, social capital, and social networks. The study uses constructivist grounded theory [1], in particular, dimensional analysis [2]; [3] to uncover the process of social capital and collaborative knowledge creation. Based on the data, collected through semi-structured interviews, and analysed through dimensional analysis [2]; [3], the study has developed a process model, which takes into account the core social identity of the learner, the stability of this identity, as well as the existing and emergent social personal learning ties, built on social capital. An additional goal of the study is to uncover the overlapping social, institutional and personal learning networks international and local students participate in and develop, to trace the knowledge sharing routes and to pinpoint knowledge creation hubs in these networks. As the result of the study, recommendations are developed for higher educational institutions (HEIs) and multinational
enterprises (MNEs) regarding the steps they can take to promote collaborative and cross-cultural knowledge creation among their members.

The higher educational institutions vary widely in their approaches to instructional philosophy, teaching, and learning, in particular, if differences in national higher education system are taken into an account. Yet, in general, it is expected that college students, being adults, approach knowledge creation in different ways than children and adolescents; specifically, their learning is likely to be more pragmatic [7] and problem solving rather than context oriented [8]. In particular, in cultural knowledge creation, learners are likely to build personal learning networks [5] to apply their social capital [9], or ‘resources embedded in one’s social networks, resources that can be accessed or mobilized through ties in the network’ [10]. While there is an on-going discussion on how exactly adults create and share knowledge in social interactions, the existence of a community of practice is recognized as positive influence, as social construction occurs in communities [11], as well as roles of models and mentors are stressed, in particular in social learning theory [12]. The role of networks in knowledge sharing in a cross-cultural knowledge absorption [13] is also recognized. In addition, Mezirow [14] posits that adults who engaged in specific activities or actions can not only gain, share and create knowledge but can drastically transforms their worldview, potentially developing a new mind-set, for example, a global one [15].

However, while networks and communities of practitioners are generally beneficial for knowledge sharing and creation, not all networks are conducive for knowledge sharing and creation. Social capital and thus networks build on it can be binding – characterized by close ties of friends and family members - or bridging, with more loose and weak ties of casual acquaintances [16]. While binding networks are used mostly for emotional support, bridging ones are more likely to promote knowledge sharing and development that could result in tangible benefits [17]. A more recently developed social learning theory, the connectivism [4] goes further and suggest looser and more pragmatic ties than the ones that are addressed by Putman [16] and Granovetter [17]. The proposed networks consist not only of social actors but, drawing on the interconnected social reality of the 21st century, combine both social and informational resources that operate in a chaotic environment and recognize, rather than create, patterns of meaning [4].

The popular media, general public opinion and even academic studies [18]; [19] tend to assign to the millennial learners a supreme technological savviness and ability to create and mobilize vast social networks. While this research is not intended to be generalized to the whole group of young adults engaged in higher education, the researchers ask how exactly international students share and create knowledge, what tools and application they use, what are the patters on the knowledge sharing and how they verify the knowledge that circulate in their networks.

2 METHODOLOGY

The grounded theory is based on constructed and emerging data; therefore, our research question was not developed prior to the data collection and analysis, but gradually constructed based on the emergent theoretical themes, specifically:

How does network development strategy choice influence collaborative knowledge and cross-cultural competence development?

The second part of the study, which is presented in this paper, was conducted in Turkey and the UK during the fall of 2015 and the spring of 2016. Data were collected through semi-structured in-depth interviews, conducted by the researchers in person. The participants were local (home) and international students, enrolled in undergraduate programs and invited by the researchers to partake in the study. As prescribed by the Grounded Method (GM), the sampling of the interview participants was driven by theoretical developments, specifically that the researcher attempted to reach different groups of participants, theorising that they were likely to use different strategies. The data were coded and analysed as they were collected, to allow the development of the emerging theoretical themes and further theoretical sampling.
2.1 Data Collection

2.1.1 Participants

The data were saturated (no new information and insights were being added) faster in the UK than in Turkey. Therefore, more participants were interviewed in Turkey (38) than in the UK (12). The main reason for that was that in Turkey, four different groups of participants divided by gender and origin exhibited different patterns of socialization and social capital development – local females, local males, international females and international males. The UK, all participants, followed basically the same social capital development model, however, some were more advanced in development of social capital. However, in the UK the major difference was observed in the level of social capital development, not the types of the approaches. The brief summary of the participants’ demographic characteristics is presented below in Tab 1.

<table>
<thead>
<tr>
<th>Countries</th>
<th>Number of participants</th>
<th>Gender M/F</th>
<th>Age</th>
<th>International/Local</th>
<th>Number of Countries of Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turkey</td>
<td>38</td>
<td>20/18</td>
<td>18-25</td>
<td>17/21</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Afghanistan, Indonesia,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Israel, Kazakhstan, Kyrgyzstan,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mali, Mauritania, Moldova,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mongolia, Nigeria, Philippines,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Senegal, Tanzania, Togo, Turkey</td>
</tr>
<tr>
<td>UK</td>
<td>12</td>
<td>6/6</td>
<td>18-25</td>
<td>3/9</td>
<td>5*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Australia, Canada, Ireland,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Qatar, South Africa, UK</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>26/24</td>
<td>18-25</td>
<td>20/30</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Africa, South Asia, Central</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Asia, Middle East, Europe,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>North America and Australia</td>
</tr>
</tbody>
</table>

*Some students named multiple countries and not always the ones where they were citizens.

2.1.2 Settings - Learning Environments

We attribute some of the difference in social capital creation strategies to the influence of learning environments [20]. The UK University (U-Uni) is a large public university. The university enrols about 15,000 students with a significant international student enrolment and international and internationally educated faculty. In contrast, although the Turkish University (T-Uni) had a large number of international students, about 40%, almost all of them were graduates of international Turkish high schools, all of which were associated with the same religious group. In T-Uni few international faculty members were employed, although some of the local faculty members were educated abroad. In addition, T-Uni was much smaller university with slightly more than 2000 enrolled students in the 2015/16 academic year.

2.2 Data Analysis

The dimensional analysis method, recommended by Schatzman [2] and Kools et al. [3], was used to provide better understanding of the process of social capital and collaborative knowledge creation. In the first part of the study, a process model based on the core social identity of a learner has been developed [21]. In the second part, additional emergent theoretical themes added more salient data dimensions, which are represented in the explanatory matrix (Fig. 1), below.
The in-vivo code of ‘building networks’, the dimension of the students’ most functional approach to the development of long-term career and social capital, in contrast to maintaining existing binding and emotionally bonding social networks, which have emerged in the previous analysis [21], has also strongly emerged in the third one (the UK). Thus, the explanatory matrix (Fig. 1) has maintained the original perspective of the ‘building network’ to address the collaborative learning process. However, new salient dimensions have been added – situational activities to the context, mixed (networks) to the conditions, social connections to the process, and entertainment to the consequences. It appears that the UK participants apply more varied approaches to network building and they build more different types of networks than the participants particularly in Turkey. In part, it could be explained by the fact that the UK participants tend to view their cultural and social identities as fluid and situationally based. For example, some participants could not easily decide whether they should be considered local (home) or international students, as they had cultural roots in several countries, and might not be considering themselves only British even if they were the UK citizens.

As the current findings can still be considered to be preliminary ones as the analysis compares only two locations, but the complete comparison analysis cycle will include the comparisons of each three locations to the other two and new or additional patterns might still emerge. The specific dimensions of the matrix are addressed below in the section 3.

3 FINDINGS

3.1 Contexts: Institutional, Social, and Situational

The process of collaborative knowledge creation takes place in several interconnected contexts: local social learning environment, institutional learning environment, created by the researched HEIs, and online, in virtual learning and sharing environments. As it was noted above in the description of the settings, institutional learning environments of two HEIs, U-Uni and T-Uni, are significantly different. It should be also be noted that while U-Uni creates collaborative learning and social spaces for its students, including group study spaces in the library, pods in the lobby for private small group conversations and a number of on-campus cafes that can be used as informal meeting spaces, T-Uni lacks social and learning spaces and discourages social networking among students, faculty and local communities. The library at T-Uni had only computers designated for database searches, café was located in the lobby, which lacks privacy, and there were neither group nor individual study spaces, nor social spaces where students can interact and work on their projects. Some of the students were involved in religious activities and study groups, however, they were reluctant to discuss that beyond mentioning that they spent time in the evening with an older ‘mentor’ who helped them to understand the religious requirements and prohibitions. There were virtually no social events, with a noted exception of national holidays’ celebrations, organized by the International Student Union, and extra-curriculum academic activities were limited to open lectures and research seminars rarely attended by students.
In general, T-Uni represents closely supported and monitored family-like educational and learning environment ‘Happy Family’ [20], while U-Uni is more consistent with an academic oriented ‘Plucky Orphans’ environment [20].

Although national cultural differences, which obviously influence educational environments and models [22], might be offered as an explanation for the differences in the researched contexts, we would like to point out that the participants in the UK came from diverse national backgrounds and our goal is to compare students’ social capital building strategies, not educational environments as such.

An alternative explanation might be religious affiliations. T-Uni was affiliated with and is partially funded by a dissident religious community that is promoting more conservative Muslim values than Turkish society in general (Turkey is a secular constitutional republic) and therefore, while certain rules are not formalized, they are nevertheless enforced. Almost all of the female faculty and staff, as well as the majority of female students, are ‘veiled’ - they wear hijab and clothes that completely cover their bodies. T-Uni provides gender segregated group housing for international and local students: in these university apartments both TV and the internet are prohibited and students of different genders are not allowed to socialize unsupervised. However, students can also live in dormitories, where the rules are more relaxed, or in unsupervised privately rented apartments, as well as at home with their families.

In general, it can be noted that while in the UK both international and local students tend to socialize freely in the university and outside it, T-Uni students exhibit a marked difference in socialization and communication patterns – while local female students rarely have friends of different gender and do not socialize outside their families or the religious community, international students and local male students are more likely to meet people outside the university and families. Nevertheless, all T-Uni groups tend to prefer socializing with the same gender and local students rarely socialize with international ones.

In addition, it appears that the UK participants are more likely to engage in a situational friendship and connections, for example, with members of a hobby or an interest club, socialize with roommates or classmates, but based only on this the specific shared interest/situation. They also reposted different levels of closeness, being much more likely to differentiate between casual acquaintances and friends.

3.2 Conditions: Open, Closed or Mixed

As stated in the contexts (above), there is a significant difference in the learning environment between the two researched universities, and the most salient dimension of this difference is open, closed or mixed conditions of these contexts. The network building conditions that are present in U-Uni are characterized by the open and mixed network structure, where social capital can be shared and developed in different networks and then transfer around them. The participants in U-Uni report meeting friends of their own friends at social and educational events and building networks through shared hobbies, beliefs, and interests. They also repost the flow of information from one network to another. They participate in both binding and bridging networks and they are engaged, to some degree, in social network-based collaborative knowledge creation [23] based on shared trust [24].

In T-Uni, although social capital creation patterns differ based on the demographic characteristics of the participants, students tend to belong to binding networks that were created based on the situational proximity – the family, elementary school friends, roommates, and classmates from the same country or region. Many of the participants, mostly local male students, admitted a lack of trust in any of their connections, including those, whom they consider to be their closest friends, and even in their family members. This is consistent with the recent findings on extremely low social trust in Turkey [25]. While in the UK the participants could name several sources of useful information, however, were likely to turn authority figures, parents, and close friends participating in closed, bonding networks, local Turkish participants often stated that they do not know whom they could ask for information and help and that they would not ask anyone’s advice or search for information themselves. In contrast, the international participants in Turkey, just like the participants in the UK, could name various family members or students from the same country as their most likely information and advice sources to be used in an emergency, despite the fact that neither a family member nor another student from the same country was likely to have superior knowledge to themselves of local conditions or a greater access to the local social resources.

As at the previous stage of the analysis [21], in both locations virtual communities and online resources were not likely to be used instead, but only in addition, to social networks. Very few
participants in T-Uni reported being engaged in any online community, except for Instagram and other picture sharing applications. Local students were even less likely to use any information sharing resources, to participate in online communities, or to use academic and professional resources, even when specific sites and blogs were recommended by their instructors. They use instant messaging applications, such as WhatsApp, to communicate with classmates regarding home assignments, to share celebrity and personal gossip, as well as to make logistic arrangements. Their preferred way of finding information, including professional advice and academic sources, is ‘Google Search’ – or, as it is called in Turkey, ‘asking uncle Google’. The reference to an authority figure, such as an uncle, seems to preclude students from critically assessing the quality of information, comparing different sources, and from evaluation of trustworthiness and competence of authors.

On the other hand, the participants in U-Uni report using online communities mostly for entertainment, sharing jokes, gaming, and using online resources of their real-life communities – churches, volunteer groups, etc. The UK participants have not reported combining social contacts and information searches and seemed to equate popularity in a friendship group with knowledge, as they are more likely to ask a popular member of a group for information than to find the most knowledgeable one.

3.3 Process: Knowledge Creation, Information Sharing or Social Connection

As we have expected to find, the students who are most likely to engage in knowledge creation process tend to create multiple interconnected networks, which are characterized by weak ties, pragmatic reasons to connect and a flow of knowledge and social capital from one network to another. Fig 2 presents an example of such network.

In comparison with the findings of the first stage [21], entertainment oriented groups are added, and hobby groups are renamed hobby/belief. In contrast to the participants in T-Uni, who, despite the fact that they were practicing Muslims and belonged to the religious community, did not discuss faith based groups, only the roommates (in religious based dorms) and classmates, the U-Uni participants were open about their beliefs, both political and religious, and discussed the beliefs and faith based groups to which they belong. While such groups are unlikely to provide long-term professional and career related benefits and create knowledge, nevertheless, they could create weak ties and information sharing. In addition, several new patterns of knowledge development and information sharing are added to this new model.

On the other hand, an example of a closed, binding, emotionally bonding and circumstantially developed network, in which specifically local female participants in T-Uni are engaged, is presented.
in Fig. 3 below. In this situation, a student is engaged only in the family, childhood friends’ and situational same gender classmates’ networks. These networks do not connect with each other and the memberships in them are based on the circumstantial characteristics: one’s family of birth, the location of one’s childhood home, the fact of being enrolled in a specific course. However, it is worthwhile to point out that mostly local female participants appeared to exaggerate the extent of their social life and the variety of activities they claim to be involved in with their friends. Similarly, they often stated that they have many friends, including international ones, but when asked for details were only able to recall activities in which they participated with their childhood friends, or the best (female) friend they have in the university. One of the explanations for this might be a conflict between their desire to appear popular, outgoing and worldly to the researcher, their instructor, and the strict religious rules of their families or the religious community to which they belonged.

![Diagram](https://via.placeholder.com/150)

Figure 3. A sample of the social network based on circumstantial proximity [21].

Similarly, to the imaginary network, there seem to be ‘shadow’ networks and social groups, to which mostly male participants in T-Uni belong; a participant could not provide any specific information about the activity, which he claimed to enjoy and practice with his friends. Therefore, it appears, that, while a participant might accurately describe his social group, the amount of time they normally spend together, the means and the frequency of communication and other specific characteristics of their social network, he would change the purpose of the socializing and the reason for the connection.

It should be noted that all participants were given a detailed explanation of the confidentiality of the findings and their exact answers, and the researcher who was interviewing Turkish participants is not a member of any religious community, therefore, there could not be any, not even concealed, negative consequences, judgements or censure. It appears that instead of explicitly hiding their activities and social networks, some participants actually believe in the reality they constructed for the researcher and do not admit even to themselves that they are actually engaged in a different activity and social network that they have reported.

The UK participants reported participation in social oriented groups that appeared to focus on partying and making situational, but not long-lasting, connections. While they mentioned that some of this networking led to closer connections, it is unclear on what specific basis these closer connections were built.
3.4 Consequences: Collaborative Learning, Doing Homework or Entertainment

Based on multiple strategic choices the participants made in their social capital development and network building approaches, the knowledge creation process could result in collaborative learning that takes place in social networks. On the other hand, if different choices were made, no knowledge creation or learning would occur. It appears that in the latter situation, the participants frequently describe their academic activities as ‘doing homework’, which falls short of an adult approach to learning as problem solving [8] or professional expertise development [26]. Specifically, participants in the UK mentioned the entertainment value of their network, as engaging in social activities, sharing jokes and building social contacts, but with limited knowledge creation. While few of the participants in both locations reported engaging in purposeful and practical knowledge sharing and creation, all of those who reported it had also stated that they had prior cross-cultural and professional experience, as well as explicit global career goals.

The strategic choices that a learner could make are presented in Fig. 4 below, which is also updated from the model presented in the first part stage of the research [21]. The choices most conductive to collaborative learning outcomes are presented in **bold**, while the choices that are unlikely to lead to such outcomes are presented in *italic*. However, we would like to stress that there are multiple combinations of functional choices and the most important factor is the variety of groups and networks, as well the variety and quality of information and knowledge shared in them.

![Figure 4. Social capital development strategic choices.](image)

As indicated above, it appears that building interactive academic and professional networks based on weak ties in universities and professional environment is the most conductive approach to collaborative learning, while belonging to isolated family and childhood friendship groups based on the ties, the strength of which cannot be differentiated by a learner, and where personal information is merely shared, can result in gossip, limited personal problem solving and ‘doing homework’ approach to academic learning.

4 CONCLUSIONS

While we are not proposing any final theoretical models at this point, it is likely that the learners, who are participating in multi-dimensional and loosely connected PLN [5] characterized by multiple networks consisting of weak ties and who utilize problem solving models of knowledge creation, are more likely to engage in collaborative knowledge sharing and are more likely to prepare for global
careers[6]. However, the preliminary findings show that international students in general lack skills and a desire to create functional PLN – they tend to engage in multiple binding networks [16] characterized by strong emotional bonds but limited knowledge creation. Although the participants in U-Uni were more likely than the participants in T-Uni to be involved in hobby and academic social groups and to build networks based on practical goals, in both locations the participants were more likely to belong to emotional bonding networks and were more likely to share personal information about their friends, and solve personal relationship problems than to gain and create professional and academic knowledge.

In addition, few participants, in particular in T-Uni, displayed an adult learning orientation and those few who did, have prior cross-cultural experience and were more mature learners. They were more likely to engage in cross-cultural experience, to have a cosmopolitan outlook and are more likely to develop a global mind-set. While at this stage it is premature to suggest any specific steps that international higher education institutions and other multicultural learning environments might take to encourage social and technological networking and PLN building among international students and other members of learning communities, some tentative recommendations are presented in the following section.

5 RECOMMENDATIONS

This paper presents partial findings of an ongoing three-country based study; therefore, any definitive recommendations might be inappropriate at this stage. Nevertheless, even now, there are clear indications that HEIs can take certain steps to help students create social capital and engage in collaborative knowledge creation.

First, despite a widespread belief that the members of the millennium generation were born as digital natives, students appear to lack academic research and information evaluation skills. Academic learning and research skills, including the online presence, portfolio building, social and professional networking, can be taught and practiced in HEIs and this would also improve students’ digital research and networking skills.

Second, as person social networking and social media driven networking should be viewed as mutually exclusive, but should complement each other, HEIs should create and maintain physical social spaces on campus and organize not only academic and professional but also social and entertainment events to encourage social and professional networking. To maximize the effectiveness of such events, a special effort must be made to include the whole academic community.

Finally, as networking is a valuable professional skill which many students lack, HEIs should prepare students for future academic and professional careers by providing training in networking, both in real life and on social media.

REFERENCES


