

STUDENTS' PERCEPTION OF GROUP WORK AND KNOWLEDGE BUILDING IN AN ECONOMICS UNIT

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Abstract: The purpose of this study is to examine students' perception of group work and knowledge building in an economics unit. Even though economics is a required subject for most business courses in higher education, past studies have shown that students perceived economic concepts as too abstract to understand and irrelevant to the real world. A qualitative research approach was chosen, using semi-structured face-to-face focus groups and/or individual interviews with forty-six business students who voluntarily participated in this study. The research results revealed that students have either a positive or negative perception of group work and knowledge building experience. Furthermore, this study found out that students who work in groups are able to demonstrate their ability in making economic concepts relevant by connecting the concepts to the real world if there is an on-going collaborative effort among team members. Guidance from the lecturer and team members could support some students particularly those who came from high school to tertiary learning, and where this is their first exposure to group work that deals with the complexities of real world events. The results presented may facilitate improvements in group work and increase the likelihood of knowledge building in economics subjects.

Keywords: Group Work, Knowledge Building, Collaborative Learning, Economics

Introduction

A primary concern in higher education is that graduates are expected to acquire knowledge and skills so that they are able to develop competence in continuous learning and problem solving in real life situations. Economics is a required subject for most business courses in tertiary learning. A diverse group of students poses a challenge for economics lecturers not only in terms of determining the relevant subject-specific skills to be embedded in the subject, but also in deciding the range of generic skills that the students will learn and later enable them to enhance their employment opportunities (Forsythe, 2010). Zlatkin-Troitschanskaia *et al.* (2016) reviewed past studies and state that the importance of economic knowledge in higher education has increased significantly not only in business but also in law and engineering courses at the international level.

Background of the study

This study researched and reported on students' perception of group work and knowledge building on group assignment that is related to economics in the business environment. The aim of this group assignment is to expose students to different market structures so that students will understand the behaviour of firms by examining and comparing businesses from a similar industry. In this study, group work refers to students work together to complete a written report whereas knowledge-building is defined as the "production and continual improvement of ideas of value to a community" (Scardamalia and Bereiter, 2003, p.1371) that is students learn how to continually improve ideas among group members.

Review of related literature

Group work provides chances for students to negotiate meaning, manipulate ideas with others and reflect upon their learning (Fraser and Deane, 1997). Small group structures help distribute the cognitive load among the members of the group. This happens by taking advantage of group members' distributed expertise. Discussion among team members activates relevant prior knowledge and facilitates the processing of new information (Hmelo-Silver, 2004). This means that each member's efforts are required and indispensable for group success. Thus each member has a unique contribution to make to the joint effort because of the availability of resources, roles, and task responsibilities (Johnson and Johnson, 1999).

Participants through their collaborative interactions within a social and environment context (King et al. 2010; Yew et al. 2011) build knowledge. Bruffee (1995) states that the collaborative learning not only helps students become autonomous, articulate, and socially and intellectually mature, it also helps students learn the issues significantly due to a discipline-based inquiry process. Learners are able to construct meaning and knowledge, and identify the course of learning through active participation in individual and social activities (Biggs, 1996). Theoretically, the hierarchies of the building of knowledge in an economics subject starts from mastering the basic economic concepts to attaining higher-ordered thinking, creativity and synthesis of knowledge (Steinemann, 2003; Walstad, 2001). It is assumed that if students understand the subject content, they will be able to retrieve meaning from it and build interconnectivity between related concepts since "individuals are active in the reconstruction of the messages and meanings of assessments" (Sambell and McDowell, 1998, p.391).

With research and learning carried out in groups, students can learn how peer learning enforces knowledge and how group interaction allows deliberation and the exchange of information. Team members share responsibility for the overall advancement of knowledge in the team. This is consistent with the socio-cultural approach, the view of learning focuses on collaborative knowledge building and is an ongoing activity at the group level (Arvaja, 2005; Arvaja *et al.* 2007).

Purpose of the study

In previous studies, students have stated that economic concepts are too abstract to understand and they perceive these concepts as irrelevant to the real world (Islam, 2011; Reimann, 2004). Furthermore, studies in economics research (Tang, 2003; Tang and Robinson, 2004) have consistently shown that students lack the skill or ability to apply economic concepts to real world problems. Despite a great amount of writing devoted to introducing and integrating group work that deals with real problems to engage student learning (Forsythe, 2010; Goodman, 2010; Guest, 2012), there remains a paucity of evidence on the content and nature of knowledge building that takes place in collaboration between students.

Hence this study aims to examine students' perception of group work and knowledge building in an economics unit. Also, this study is relevant to higher education government policy in Malaysia because economics is an elective subject in secondary school, but is classified as a compulsory subject for all pre-university and undergraduate business studies (Khoo and Abdul, 2013). This study was conducted in the context of a naturalistic educational context, that is in a higher learning institution, so the process of knowing should be highly valued (Brownlee *et al.* 2009).

Research methodology

A qualitative research approach was chosen, using semi-structured face-to-face focus groups and/or individual interviews lasting up to one hour. The purpose of the focus group interviews is to get collective views on a group of people, normally three to five members in a group. The individual student interviews and focus group interviews were organized separately. Direct quotations from interviews are a basic source of raw data in qualitative inquiry that could reveal respondents' depth of emotion, the ways they have organized their world, their thoughts about what happened, their experiences, and their basic perceptions (Patton, 2002) will be presented in the findings and discussion section. For ethical reasons, all the names used in this study are pseudonyms.

Purposive sampling was used in this study in selecting information-rich cases for in-depth study. Patton (2002, p. 230) states that, "Studying information-rich cases yields insights and in-depth understanding rather than empirical generalization." The participants were recruited from the course of Foundation of Arts in a private university in Sarawak. The criterion for participant selection was that participants were business students who enrolled for an introductory economics unit whereby this unit involved group work and group assessment. Fifty business students attended a briefing that was conducted by the researcher. After the briefing, a total of forty-six students expressed their willingness to participate in this study.

Findings and discussion

The research results reveal that students have either a positive or negative perception of group work and knowledge building experience.

Students' perceptions about their experiences with group work

The majority of the participants (n = 33) perceived their experience with their group work positively. Results reveal that students who found the experience of working in groups positive were more likely to reveal that they were satisfied with their team members and team leaders. Besides that, they revealed that they were content with the way that meetings were conducted in their groups. They also perceived that their interpersonal relationship with their team members as good and pleasant. In addition to that, they enjoyed the field work that they participated in. They identified that with the exposure to this group assignment, they have gained knowledge on the current economy, background of the organization, how to do business, preparing a report, planning the allocated tasks, and they had opportunities to share ideas among team members. This means that in certain circumstances ideas proposed by some students were taken over and expanded on by others. In this way, the cycles of discussion contributed both to the diffusion of ideas in the group as well as to the expansion of knowledge (Elbers and Streefland, 2000).

Students who had an unpleasant experience with their group work expressed that they were dissatisfied with the task allocated in the group assignment, field work experience, and interpersonal relationship among team members. Students expressed concerns that they did not receive proper guidance from seniors. Seniors are perceived by juniors as experts to guide them in their discipline; juniors are ordinary group members who perceived themselves as novices in their discipline. Hence, the guidance provided by seniors is greatly needed by juniors. Apparently this did not happen in some groups. Besides that, communication barriers also caused an unpleasant experience for some students. Students were not able to familiarize themselves with each other in a short period of time when members come from diverse language and cultural backgrounds so it was difficult "to expect newly formed groups with a substantial degree of cultural diversity to be able to solve problems very effectively" (Watson *et al.* 1993, p.598).

Student perceptions about their experiences with knowledge building

Based on student narrative descriptions, it is most likely that a positive group work experience may lead to a positive knowledge building experience. This is evidenced in some participants, like G, H, J and R, where they explained their positive experience in knowledge building. However, we cannot deny the presence of negative group work experience that may prohibit students to engage in knowledge building.

A participant, J, highlighted the importance of 'understanding' in her knowledge building experience. This signifies that in group work, students take responsibility for advancing the group's understanding as they ask questions and built on each other's thinking to construct collaborative explanations (Hmelo-Silver and Barrows, 2008). This also confirms that if group assessments are employed correctly, it is undoubtedly they have the potential to promote better student interaction and understanding and allow a sharing of different views and knowledge (Strauss and Alice U, 2007).

"Without understanding, we cannot complete this task, we don't understand what economics is; we cannot come up with our own sentences or otherwise you know people would say we plagiarize other people's work. I think it is all based on understanding, you have to understand the economic terms." (Participant J, individual interview on 20th July 2016 at 1pm)

Another participant, R, used the term 'communication' to illustrate his knowledge building experience. This finding is consistent with that of Jang (2007, p. 68) who found that "talk becomes a key component of knowledge construction and validation."

"For me (it) is communication. It is because we have to talk to each other to know what others are thinking and some just keep quiet, so we try to talk to them to get to know each other so we can know and do it together." (Participant R, focus group interview on 20th July 2016 at 2pm)

Participants such as G and H relate their knowledge building experience with continuous improvement. Participant G shared that her experience is like "*Climb the staircase. Improve myself one by one and increase my knowledge*" (Focus group interview on 21st July 2016 at 1pm). Another participant, H also had the same experience and used 'Kaizen' to describe it. "*When I work with the team members, (we) make mistakes and improve on it ... know and learn something new from the interview, marketing strategy, how to attract customers, the knowledge could be used in the future if I want to operate a business*" (Individual interview on 19th July 2016 at 12 noon). This finding is consistent with the analysis of collaborative learning that revealed patterns of repetition and reconstruction of ideas in groups that foster the circulation, improvement and acceptance of knowledge (Elbers and Streefland, 2000).

It is important to note that two participants expressed their knowledge building experience as 'scared' and one participant expressed 'worried' for her experience. Four participants even mentioned that their knowledge building experience is 'stress.' Their experiences were caused by unclear expectations of the group assignment, overwhelmed with the workload allocated, limited assistance and guidance by senior, and team members who were not proactive in completing allocated tasks.

“As a leader, you have to do the research and tell them [team members] what to do. Everyone will come after me. My senior is not helping at all. Keep asking questions.” (Participant N, focus group interview on 21st July 2016 at 1pm)

Due to their unpleasant experience in knowledge building, they wish that their team members could have been more responsible in their work and there should have been better coordination in work allocated.

“Because the team members seem like (they are) doing their own work ... I don’t know how to describe the situation.” (Participant W, focus group interview on 18th July 2016 at 11am)

Throughout this group work and knowledge building experience, students revealed that they were able to identify economic concepts and relate these concepts to economic events. Table 1 (below) presents the excerpts from interview responses that are related to economic events. Participants derived economic concepts such as demand and supply for goods and service, the impact of implementation of Goods and Services Tax (GST) in Malaysia, market opportunities and real world events. This shows that students were able to demonstrate their ability in making these economic concepts relevant and meaningful by connecting them to real world events when completing this group assignment, particularly for those participants who have positive group work and knowledge building experience.

Table 1 Excerpts from interview responses that are related to economic events

Economic concepts and excerpts from interview responses	Participant’s group work experience	Participant’s knowledge building experience
Demand and supply for goods and service		
<i>When the university is “having [sic]” semester break, the café “nearby [sic]” the off-campus hostel didn’t prepare so much dishes due to a low demand.</i>	Positive “We divide the tasks.”	Positive “Amazing”
(Participant S, focus group interview on 18 th July 2016 at 3pm)		
<i>The demand and supply for “Thai sauce” [a savory sauce] chicken rice. The cafeteria runs out of this ingredient in preparing this cuisine.</i>	Positive “I like the members to work together.”	Positive “Understanding”
(Participant J, individual interview on 20th July 2016 at 1pm)		

<p><i>The demand for bubble milk tea “at [sic]” this town was affected by food poisoning incidents that happened in Taiwan because one of the main ingredients in preparing the drink is tapioca pearls.</i></p>	<p>Positive “The interview was interesting.”</p>	<p>Positive “Challenging”</p>
<p>(Participant K, focus group interview on 20th July 2016 at 4pm)</p>		
<p>Implementation of Goods and Services Tax (GST)</p>		
<p><i>Since the implementation of GST in Malaysia, “the price of dishes also increases [sic]”. To remain competitive in the market, the owner of the restaurant compares the price of his dishes with other restaurants.</i></p>	<p>Positive “Can increase knowledge.”</p>	<p>Positive “Relax”</p>
<p>(Participant C, focus group interview on 21st July 2016 at 1pm)</p>		
<p><i>Just like the “presence [sic]” of GST ... the smoothie and juice bar’s owner said that normally their sales are good but after the “presence [sic]” of GST, there is “slightly [sic]” change in demand ... so less kids purchase the drink...</i></p>	<p>Positive “The interview was interesting.”</p>	<p>Positive “Challenging”</p>
<p>(Participant K, focus group interview on 20th July 2016 at 4pm)</p>		
<p>Market opportunities</p>		
<p><i>The hardware business “is operating [sic]” in an open market. The owner of the hardware shop also involves in construction industry to diversify his business.</i></p>	<p>Positive “Can go for the interview.”</p>	<p>Negative “Scared”</p>
<p>(Participant P, focus group interview on 21st July 2016 at 1pm)</p>		

<i>I learn that this beverage and food outlet "is [sic]" a little bit hard to penetrate the market because in this town, we really like low cost...</i>	Positive "The interview was also interesting."	Negative "Tired"
(Participant D, focus group interview on 20th July 2016 at 4pm)		
Real world events		
<i>To know about new stories in the world besides "what stated" [sic] in the books of economics.</i>	Positive "Punctual... hardworking"	Positive "Responsibility ... punctuality"
(Participant E, focus group interview on 18th July, 2016 at 3pm)		
<i>Knowing about the economy in Malaysia.</i>	Positive "Teamwork"	Positive "Interesting"
(Participant Z, focus group interview on 18th July, 2016 at 3pm)		

In order to facilitate the process of group work and improve knowledge building, more inclusive practices, for example a briefing on group work, is recommended so that students are involved in the group process and the confidence of less assertive students can be improved. Also, there should be sufficient time for students to be pre-taught how to form and maintain workable groups and strategies to help them deal with conflicts (Strauss & Alice U, 2007). Furthermore, for some students where this is their first exposure to a group assignment that deals with the complexities of real world events, guidance is needed from the lecturer, team leaders, and members. Guidance from the lecturer could support students when transiting from high school to tertiary learning. The findings of this study are important in planning group work and laying the groundwork for knowledge building experiences. Students' views on negative group work and knowledge building experience need to be canvassed to bring about improved understanding and implementation of group work in the future.

Conclusion

This study has explored and revealed students' perception of group work and knowledge building in an economics unit. The economic concepts that derived by students are closely related to economic events. The results presented here may facilitate improvements in the group work and increase the likelihood of knowledge building. In order to find more congruence and achieve their shared goals, students have to understand that they do not learn in a vacuum and their learning is always situated within a social cultural context. Based on student narrative descriptions, it is most likely that a positive group work experience may lead to a positive knowledge building experience. However, we have to take into account the presence of negative group work experience that may prohibit students to engage in knowledge building effectively so that they can apply what they have learnt in understanding real-world events.

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