

## Reporting the impact of Student Centred Learning (SCL): Interactive learning experience based on small-scale study in undergraduate business classes

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*This paper presents an examination of the student response to a small-scale experiment in Student Centred Learning (SCL) in undergraduate business classes. This experiment tests the benefits and the impact of Student Centred Learning approach. Also, this approach will help to discover and identify students at risk. This experiment examined the twelve principles of SCL in the Faculty of Business Administration, Economics & Political Science (BAEPS) as a part of teaching and learning strategy. Feedback was collected from three students' groups undertaking different modules at three levels within the Business Department. Each module applied SCL for the first 6 weeks of the module and the rest of semester applied traditional teaching methods. The three groups were undergraduate business students' classes during one semester at the British University in Egypt (BUE). The feedback from the majority of the three groups reported positive practises. This paper presented a justification and explanation for success and pitfalls in student centred learning and recommended creative interactive teaching strategies. This experiment proved that SCL implementation, together with a traditional approach in teaching and learning, is more effective for undergraduate university students learning route.*

### Key words

Student-centred learning;  
teaching strategy;  
interactive learning,  
higher education,  
undergraduate,  
business students

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### Introduction

The Student-Centered Learning (SCL) approach was presented in early 1905 and started to be used in work in 1956 by Hayward and Dewey's. The one who modulating this approach into the education theories in the 1980s. This approach accompanies the work of Piaget (developmental learning) and Malcolm Knowles (self-directed learning). The concept of SCL has been characterised by cf. Lea et al, 2003, their characteristics are passive learning, deep learning and understanding, increased responsibility and accountability, increased sense of autonomy in the learner, interdependence between teacher and learner, Mutual respect relationship between learner and teacher and a reflexive approach.

In the world of literature, the concept becomes more widely accepted in the world of education and research. The approach of SCL outweighs the expected drawbacks and disadvantages. (McCabe & McMahan 2011; Osborne 2008; McMahan 2011). However, some universities continue to follow a traditional approach of teaching, teacher-Centered models. (Prosser and Trigwell 1999).

The traditional model of teaching in Business in a university is the lecturer spends the lecture reviewing and presenting the information related to the topic using PowerPoint. In some instances, the lecturer asks the students to read a sentence or the lecturer picks students at random to answer questions.

The lecturer concludes by summarising his/her points and providing the students with an accepted model from his/her point of view. A German researcher noted this approach was the prevailing teaching strategy in the 1970s (Peter Hutchinson, 1977). Also, the traditional approach affects students by disempowering them and preventing them from obtaining autonomy and skills for lifelong learning (Trilling and Fadel 2009). In addition, it can narrow the opportunities for developing intellectual and analytical critical thinking skills, such as evaluation and problem-solving skills (Anderson and Krathwohl 2000).

There are some different studies highlighting the impact of SCL on an undergraduate student in linguistics and science. However, there are not enough studies of undergraduate business studies applying the concept. The study described in this article intended to explore whether, from a student point of view, the student-Centered learning approach has a positive impact, reflexive and reflective, on students learning at the level of undergraduate teaching (Bell and Baker, 2017). This is very important in business studies. These positive results of student-Centered learning approaches were confirmed by Handelsman et al (2004) in his research and he also noted that SCL has a positive impact on teaching, academic performance, attitudes toward learning, and persistence in programmes. Handelsman et al (2004), in an article in *Science*, confirmed the evidence that what confirmed scientific process improves learning and knowledge retention by replacing lectures with the strategies of active learning and more students engaging.

In the past the BUE has tended to use the passive traditional style of lecturing, The University Teaching and Learning Committee (UTLC) and the Faculty of Business, Economics and Political Science (BAEPS) Teaching and Learning Committee (FTLC) considered sponsoring some new ideas in teaching and learning. Furthermore, University and Faculty management gave their full support and encouragement for new ideas and creativity in teaching and learning. The idea of SCL started when it was presented as an idea and the University asked for a volunteer to apply the SCL concept in the Faculties. BAEPS was one of the Faculties which took the initiative in applying the SCL approach as a pilot for one module in the Preparatory year level in the academic year of 2015/2016. The students' results in the modules applying SCL were better compared with other modules. In 2016/2017 the Faculty of BAEPS applied the SCL approach at two level (Preparatory year and Certificate level) one module only. The student results showed more progress than other modules which were not applying SCL. At the beginning of the academic year 2017/2018 the Faculty of BAEPS established 12 principles for SCL in the teaching and learning strategy and allocated modules at three levels of undergraduate students (Preparatory Year level, Degree Year 1- Certificate level 4, and Degree Year 2- Intermediate level 3 and degree year 3).

This present study investigates an alternative approach for teaching based on students' independent learning and self-experiences whereby students interact together and exchange knowledge and experiences. And the lecturer role becomes a facilitator of this interaction which he/she presents but is not central. However, one of the big barriers in this kind of approach is the students' resistance, and this why the SCL approach needs time to build trust, closer relationships, willingness and desire at the level of both parties, students and lecturer. Furthermore, the lecturer needs to be convinced of the benefits of this approach (Bell and Baker, 2017).

### **Literature review**

Recently, different authors based on research suggested that SCL is more effective and active more than the traditional approach to teaching and learning (Tanner, 2009). A suggestion raised by Cornelius (2007), that SCL focusing on Students - Centre Teaching has occurred from two principal education models: the first model is traditional classical person-Centered, humanist, this model that

focuses on unconditional positive, non-directive, empathy and promoting the critical thinking; and the second model is contemporary, constructivist, that focuses on more students' engagement and interactive together through different activities (Cornelius 2007: 113).

The concept it has its roots in 1950 mentioned in Rogers' (1951 and 1969) under the name of "client- Centered therapy", this concept is focused and follow the approach on advocated the promote and improve skills like critical learning, self-initiative and effective cooperation (Roget1969: 114). A criticism negative point of view raised by Hirsch who claims based on instinct rather than evidence (1998:9). He claims that it is impossible for all students to be attracted to theses activity throughout a class, therefore he assumes the at students' Centre approaches are "boring", which kind of reveals misunderstanding of what is SCL. In the last 10 years, there is a fact that there a certain revolution in the way of students learning has been pointed by Hansen and Stephens in (2000:41) and they flag up the effectiveness of learner-Centered approach by different approaches students' expectation, group dynamic, environmental condition and evaluation demands.

The different approaches and strategies used in Students - Centred learning strategies are five approaches as follows:

**Roundtable:** there are techniques to apply this approach, these techniques following different stages are: The lecturer asks the students to prepare for the topic by independent learning at home- and announces this on eLearning. 2. The lecturer asks students to collaborate in small groups on a specific prompt that can generate multiple responses. Students share a single piece of paper that gets passed around their circle rapidly. 3. Students present their findings in front of the class. The main idea of working in groups is to enable students to share their responses. 4. Then the lecturer delivers a short presentation. in which s/he says that when students work as a group they may produce more to encourage the students in independent learning. Also, that preparing before the class will help their final study before exam.5. Finally, the lecturer asks the students to post their feedback on this exercise on eLearning.

The benefits of this approach are, this activity ensures that every student in the classroom is generating knowledge and contributing to a discussion simultaneously. This activity is particularly well suited to brainstorming exercises. Roundtables can quickly transform the energy within a lecture hall because multiple groups are simultaneously engaged in animated conversations or contests.

**Reader's Theatre:** in this approach lecturer select text and ask one of the students to read it load to his colleagues (Martinez et al., 1998), the researchers/ lecturer apply this approach in out experiment as follow. The lecturer selects text relevant to the day's topic and assigns students in the class to read the text out loud. 2. The text may be a short story, a passage, example, description, or a collection of statements. 3. Depending on the length of the selected text and the size of the class all students may be assigned reading responsibilities, or only a small fraction of the students may read out loud (leave it up to the choice of the students). 4. If appropriate, the student readers may be encouraged to add drama, role play, or humor to their readings. 5. This technique is particularly helpful for starting discussions, introducing new topics, or shifting gears during a long class period

The benefits of this module are: It is an efficient way to get many student voices in the classroom and shift speaking responsibilities from the lecturer to the students (towards a more interacting and active class). Getting a variety of viewpoints onto the floor for discussion in a safe and/or efficient manner. It is an effective method for encouraging participation, particularly from quiet students who may be shy and/or lack confidence in their own knowledge

**Think-Pair-Share:** in this approach, the lecturer poses a question to the whole class with explicit instruction and ask them to discuss this in a pair (Lyman, 1998 & Nilson, 2010) in this experiment we follow this step. 1. The lecturer poses a question or prompts to the whole class with the explicit instruction

that all students are expected to think independently about their answers in silence (and possibly write notes for themselves).2. After 1to 2 minute/s (the duration will depend on the complexity of the issue/topic), the instructor directs the students to pair up with another student nearby.3. In pairs (trios or four) the students compare their thoughts. Depending on the issue/topic, 4. The lecturer may guide the pairs to reach an agreement.5. After the students have talked in pairs the lecturer gets everyone's attention and asks pairs to share their responses with the full class.6. The lecturer may select pairs by cold calling, asking for volunteers, requesting diverse responses, going around the room, etc.7.The lecturer may also ask the students to post their feedback about the exercise on eLearning

The benefits of this approach are: To encourage students to think quietly. It reduces the chances that when a lecturer poses a question to the class that most students will skip thinking of an answer. It dedicates time for students to think quietly also allows students who need just an extra moment to organize their thoughts. It allows all students to think and talk. Also, it allows students to experience the advantages of explaining their responses to a peer. It also energizes and /or engages students in class activity.

**Jigsaw:** the class divided into multiple teams, the lecturer gives each group a slightly different but well explain task (Aronson and Patnoe, 2011) and (Davis- McGibony, 2010). We follow these steps in our experiment. 1. A class is divided into several teams/groups of students. 2. The lecturer gives each team/group a slightly different but well-defined task with clear instructions that each member of the team will follow in order to represent the group at the end of the task. 3. Each team then collaborates on their task, developing a logical and theoretical framework for the assigned area. Books/ articles and electronic devices may be used. 4. The lecturer is available for questions and guidance as the groups learn how to use and developed the expected work from their material. 5. Then the lecturer rearranges the groups to create new groups that are composed of one member from each of the original groups. 6. Within the new groups, each student who has already worked on a task is responsible for cascading and teaching the experience learned in the original group to the new group.

The benefits of this approach are: In a Jigsaw, exercise student take responsibility for obtaining and conveying new knowledge. The approach necessarily requires each student to be both a teacher and a careful listener during the exercise. However, each student is not required to do all the topics. This exercise naturally gets every student in the classroom talking and interacting with his/her classmates, as well as providing a burst of physical activity that can help maintain attention.

**Peer-evaluation:** this approach students take the place of the 'teacher' at the front of the class and the role of lecturer become as facilitator or external consultant presented but central of the class, student to the role of Centre of the class. In this approach, students start to collect material about the topic from the book recommended by lecturer in advance before the lecturer and ask the student to prepare the topic for presentation, in some topics lecturer ask more than one student to be preparing to give this topic for their class (Bell and Baker, 2017)

## Methodology

This article test and examines the responds of students in short experiment introduced in pilot Students Centred Learning (SCL) scheme to Business students at three levels are first, Preparatory level (P) introduction to behavioural science module group A (N= 60 divided into 2 groups)., Second Certificate Year level (C) class in orgainsational behavioural module Group B (N= 40 students divided into 2 groups). Third, Intermediate level (I level) class in employment relations module group C (N= 29 students in one group). Each module of these mentioned modules takes 12 weeks teaching, students are in Year P, C and I levels, the lecturers apply the 5 approaches of SCL strategies mentioned above for 6 weeks during the

semester. While the rest of semester weeks (6 other weeks) the lecturers uses traditional teaching methods (teacher centred -learning).

Table (1): the total number of students targeted by

	Preparatory Level (group A)	Certificate level (group B)	Intermediate level (group C)	Total
No. of students	60	40	29	129

Over the first 6 weeks, four approaches applied for the students during lectures and tutorials. For Group A in P level the SCL applied on 3 topics are (Learning, socialization and motivation) during week1, 2, 3, 4, 5 and 6, using mixed of these four approaches (Roundtable, Think-Pair-Share, Jigsaw, and Reader's Theatre), the lecturers did not use the peer review as the students in their first year and they not have confidence enough in this approach).

Group B (C level) five approach was applied to topics (personality, motivation, culture and groups), in each lecture there were and mixed between different strategies. The lecturer did not use the fifth strategy "Peer evaluation" for the whole lecture but only for 15 mints of the lecture, to help students to build the confidence and self-efficacy of beaning stand in front of their students' colleagues.

Group C (I level) five approach were applied totally to the topics (Psychological Contract, negotiation skills, industrial action, Discrimination, and different body involve in employee relations), there were more focused on the peer review, which different students take the role of teacher by presenting and explain the topic and using the other SCL approach with their colleagues. In this approach they class was full of dynamic and interaction and student enjoying and not sleep at all. This strategy student becomes more creative in presenting their part for exam some of them present their task in a way of role play which was welcomed by their colleagues, lecture set at the end of the class watch and observing the interaction.

After the 12 weeks sessions finished, at the end of the semester, the students were asked to give their written feedback regarding SCL. The two-main point of this evaluation is the advantage and disadvantage from their point of view as a learner, this format designed with the principals of the university main principals of the faculty Teaching and learning action plane for SCL, the format of the feedback evaluation was design in a way to help students not to be directed narrowly focused or leading to certain answer, it is based on the freedom and autonomy. Students given the feedback on blanked paper voluntary and anonymous, the students provide the advantage and disadvantage for 6 weeks (SCL weeks) and second 6 weeks (traditional weeks).

The data collected from students have experience with first 6 (applying SCL) weeks and also their point for the second 6 weeks (Traditional weeks) for the three groups A, B and C on the three levels. The data were coded, the evaluation designed based on 12 principles of SCL (as an advantage of the SCL for the faculty as listed below (These principles approved by the FTLC (Faculty Teaching and learning committee), after testing this approach in one class in academic year 2016. SCL approach testing by this experiment on the three years levels in business department. The disadvantages were blanked for the students to feel freely expressed their point of view.

The SCL principles (advantages):

SCL More interactive

SCL approach supports flexibility

SCL approach supports the inclusive learning

SCL produces a positive learning atmosphere

Self- and peer-appraisal

SCL lead to more concentration and attention  
 SCL develops more Engagement/ Enjoyment  
 SCL produces confidence.  
 SCL lead to a deeper understanding of the topic  
 The Speed of learning might be slower, but it is probably more embedded in the minds of the students  
 SCL helps in encouraging learning from peers  
 Presentation/ Teaching skills are stimulated and enhanced.

**Findings and results**

The information collected from students were translated into diagram presented below:  
 In general, the average of students’ feedback of the advantages of the SCL for the three level of undergraduate students was as diagrammed shows below.

Diagram 1: student view of the principle of SCL as advantages on the three level

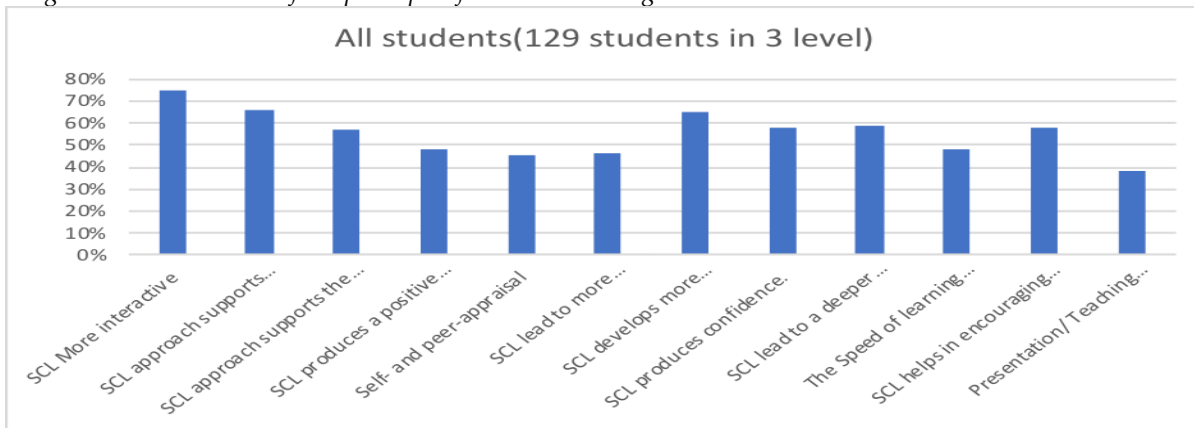
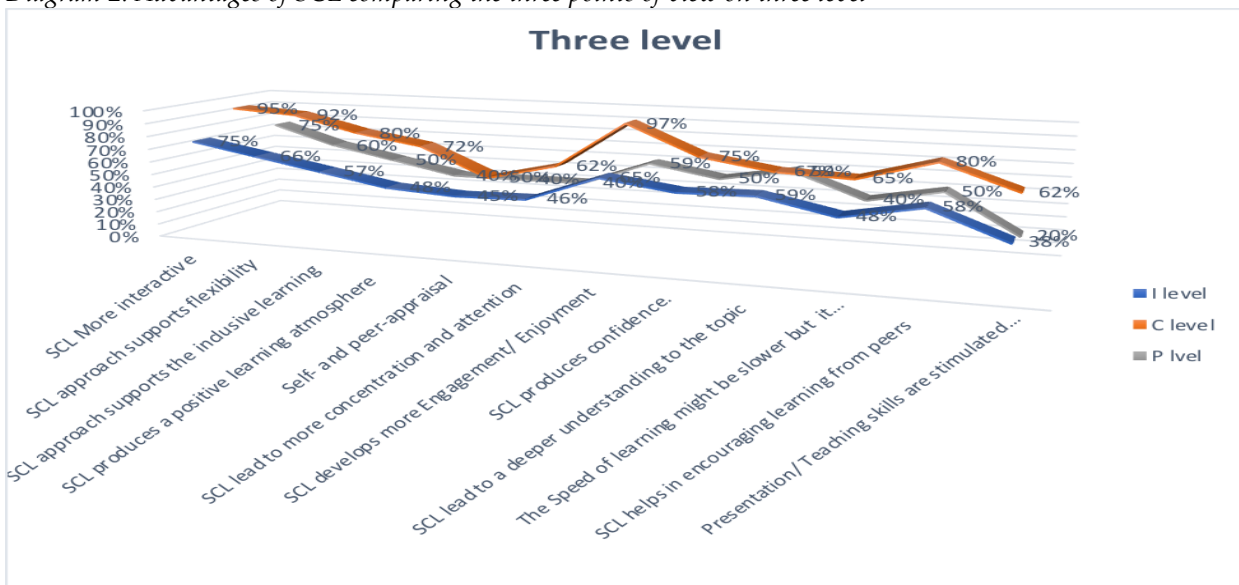


Diagram 2: Advantages of SCL comparing the three points of view on three level



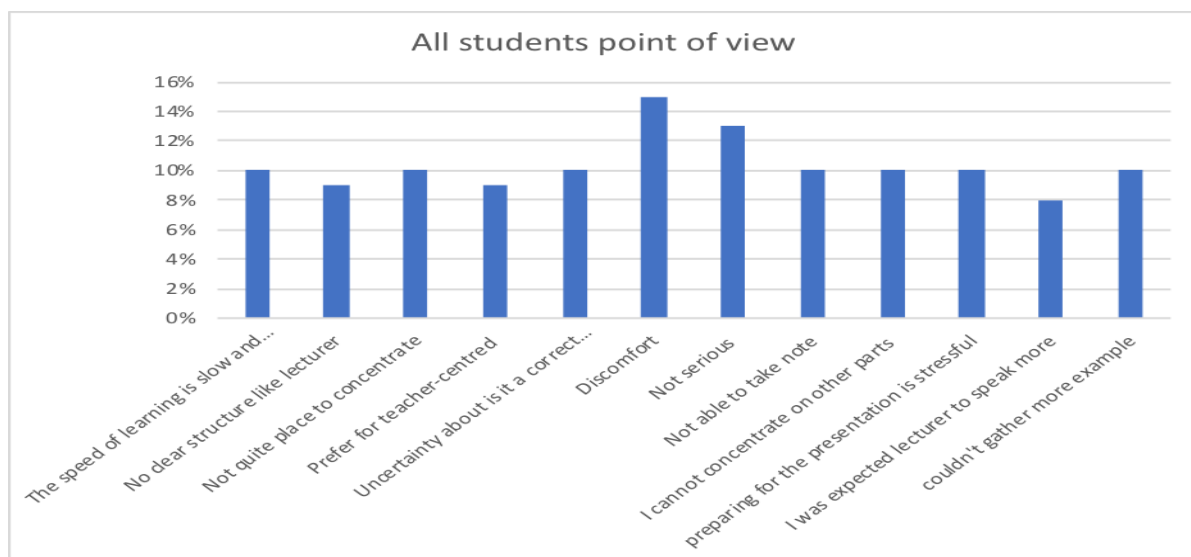
As diagram 1 and 2 shows that, the student in the three groups (A, B and C) they agreed on the principles of SCL, the highest score was SCL more interactive, which scored (more than 70% of students agreed that the SCL activity in the class is help in more interactive and moving class, one of the students mentioned that "it has stopped me from sleeping and concentrated more". Another one mentioned that "I spend less time when I study the topic again".

The second item in the advantages is SCL develops more engagement/ enjoyment and SCL approaches support flexibility both are scored more than 60% as advantages. Students are mentioned that "when they engage they are enjoying and learn more" also they mentioned this activity kill the boring of traditional approach".

The three advantages scored more than 56% are SCL produce confidence, SCL lead to a deeper understanding of the topic, and SCL helps in encouraging learning from peers. Students mentioned sometimes it is easy to understand from other colleagues because they speak the same language give example comment between students ". Some students mentioned that "I am not feeling shy to ask one of my class mates rather than asking my lecturer". More students mentioned this will help us to work smoothly during project because we know each other".

The five principals are: SCL produces a positive learning atmosphere; Self- and peer-appraisal; SCL lead to more concentration and attention; The Speed of learning might be slower, but it is probably more embedded in the minds of the students and Presentation/ Teaching skills are stimulated and enhanced scored between 40 to 50 %, which is fair score for the first-time use. Almost half present of experiment students mentioned that the atmosphere was positive, they benefit of the peer -appraisal. Also, they agreed that although the speed of the learning slow but allow them to understand the topic very well, and they are speed less time to study in again in their homes. Also, SCL develops their presentation skills, and self-directed learning, which promote their employability skills. As presentation considered one of the main skills required in applying for a job. Research suggests that students' development of graduate skills is directly motivated and affected by their ability to self-regulate their learning (Luca & Oliver, 2003; Boekaerts & Cascaller, 2006)

Diagram 3: the disadvantages raised by whole student represent the experiment group of view on three level



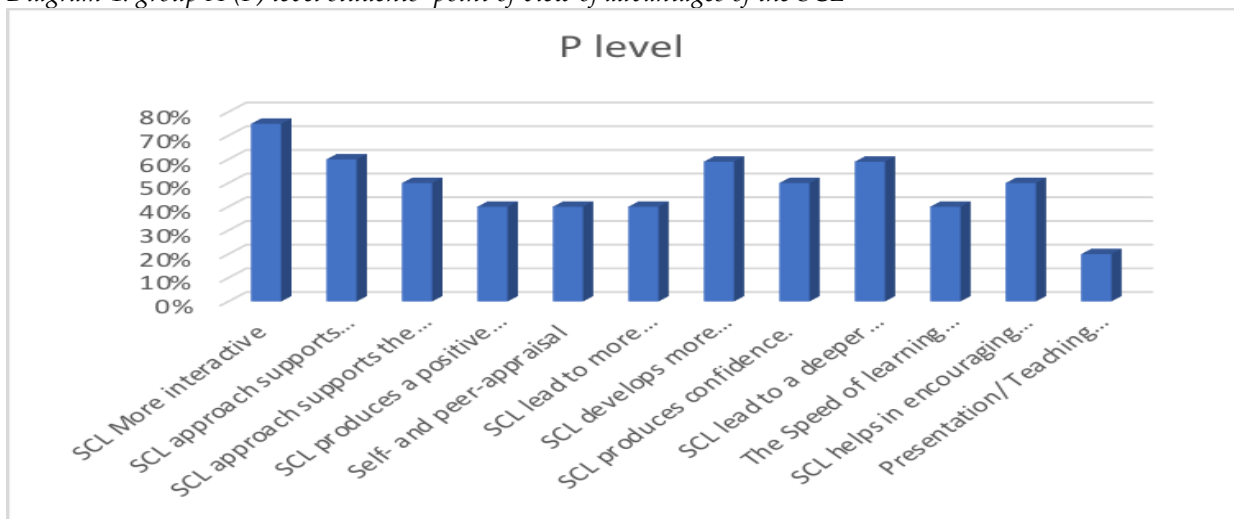
When we turn to the perceived of disadvantages from student point of view, the total students recorded the highest disadvantage was discomfort, this is because student not feel confirmable to speak in the front of their classmates of the fear of beaning criticised, has been mentioned Soliman (2016:124) "British University students In traditional class some students would be too shy to stop the teacher if he/she is going too fast". The following disadvantage was a few students not feel the lecturer with SCL activity learning become serious. The stereotype of traditional learning is known as a serious way of teaching and learning, this is a misconception acknowledge in the literature. As been mentioned by Sukim (1995) there is a common opinion that all learning should be serious and firm dialog and that if one is having fun and there is laughter, so this is not really learning.

A few students also mentioned that they cannot concentrate, the class is not quiet, they cannot gather more examples and also, they are not having enough confidence and credibility in the information presented by other colleague's student. These activities it helps students as learner not to think only about their appraisal by colleagues but also about self-appraisal. This will lead to make them aware about this activity on the assessment as 'done to learners' or 'done with learners'.

The following diagrams will illustrate the advantages and disadvantages for each level of students, preparatory level (P), certificate level(C) and Intermediate level (I).

#### Preparatory level perspective:

*Diagram 4: group A (P) level students' point of view of advantages of the SCL*



These disadvantages have been raised by Preparatory student (first year at the university)

The speed of learning is slow and information not the same amount by lecturer

No clear structure like lecture

Not quite place to concentrate

Prefer for teacher-centered

Uncertainty about is it a correct information or no utile lecturer confirmed.

Not feel comfortable when speaking in front of my colleagues

Not serious

Not able to take note



Diagram 5: the disadvantages raised by preparatory student group (A)

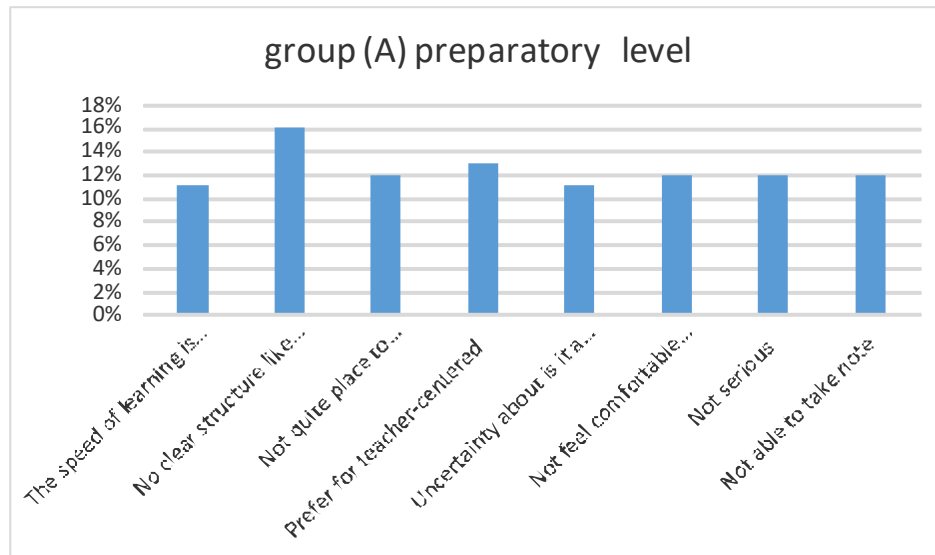
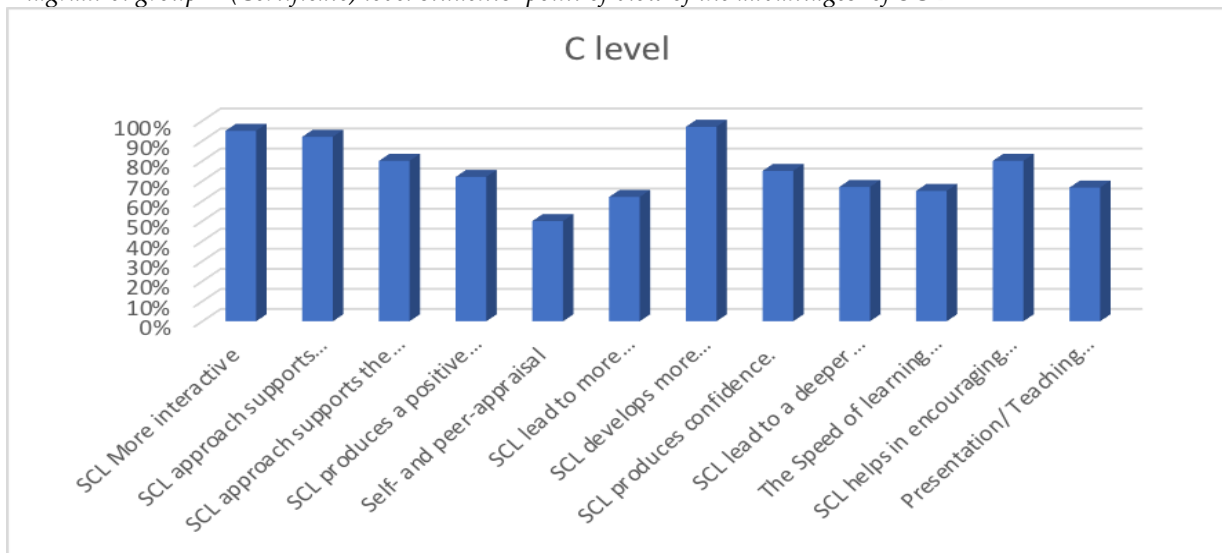
Certificate level perspective:

Diagram 6: group B (Certificate) level students' point of view of the advantages' of SCL



These disadvantages have been raised by certificate student

The speed of learning is slow and information not the same amount by lecturer (5 students)

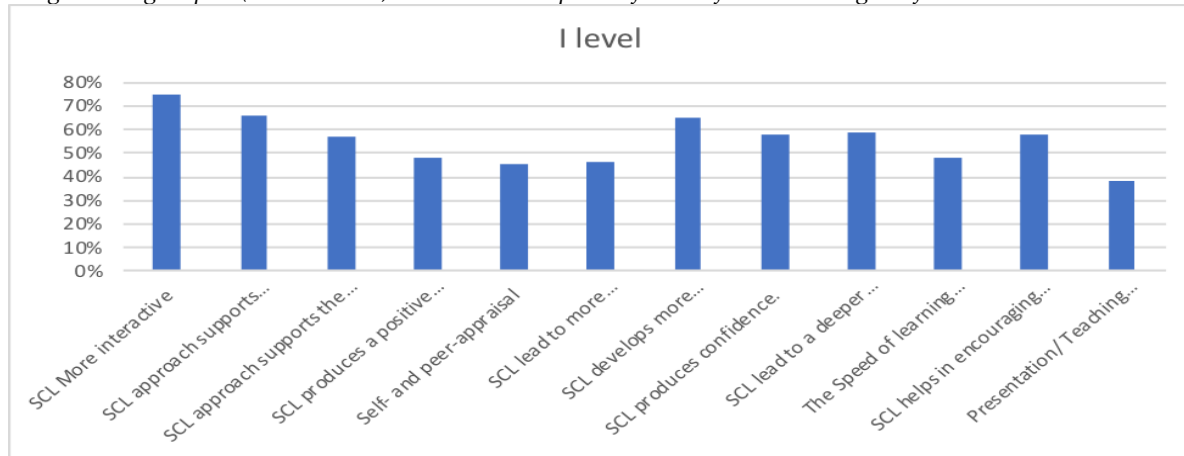
Not quite place to concentrate (6 students)

Prefer for teacher-centers (8 students)

Not feel comfortable when speaking in front of my colleagues (10 students)

Intermediate level perspective:

Diagram 7: group C (intermediate) level students' point of view of the advantages 'of SCL



The disadvantage raised by a few students only 3 students were:

Negative learning atmosphere (3 students)

I cannot concentrate on other parts (4 students)

preparing for the presentation is stressful (4 students)

I was expected lecturer to speak more (5 students)

couldn't gather more example (2 students)

**Advantages, disadvantages,**

Based on the survey study took place in the undergraduate business students for the three groups (A) Preparatory students, (B) Certificate level 4 students, and (C) Intermediate level 5 students. Our finding shows that the students in the Intermediate level faced fewer disadvantages than Preparatory year students. As the students are familiar with each other, an atmosphere of trust builds (Bell and Baker, 2017).

One of the disadvantages of this approach is that some active students can take the opportunities of full participation in the SCL activity while other students are shy of participating in these activities. This is a result of anxiety and causes stress for a few students. Students should be familiar with these activities especially the activity requiring them to face their colleagues in the class.

The general advantages of using SCL is when the time of the class is spent in a deeper engaging of targeted theme content, consequently creating "learning connected communities" (Garrison and Kanuka, 2004; So, and Brush, 2008). In simple words, when students are involved in SCL task before the class, they learn the topic in deeper way. As Davis, Gillette, and Robert (2013) stated "collaborative activities and peer learning, which is reflective of how the systems analysis and design process is conducted in a real-world environment" (as cited in Elliot, 2014). All this will lead students to be more engaged in the class in discussion, problem solving, communication and feedback, critical thinking, which is all crucial for lifelong learning skills. Graduating students need after employability skills. The SCL approach also revealed students at risk at an early stage which was one of the purposes of this teaching activity.

**Limitations and challenges that faced the application of SCL**

This small-scale experiment qualitative research study was limited by the focuses on a specific teaching context in business studies and on the small number of students (129 students in the whole Department). Also, it depends on self-reported data.

The sample were the undergraduate students in the Business Department at the Faculty of BAEPS, so it might be difficult to practise the same approaches and tools of SCL presented above which should be adapted according to the practices and policy of the academic institute.

Some of the instructors or lecturers were not interested in this approach because it requires more preparation and more work before the class with the students. They preferred to use the traditional way of teaching that they were familiar with and which does not require more work. The Faculty after this experiment developed a strategy to nominate 3 modules yearly and allocated a SCL coordinator for monitoring, evaluation and developing an action plan and yearly progress report for the nominated modules. The Faculty started to compare the results for modules applying SCL with other modules which do not apply SCL.

A few of the students were not interested in using the approach and being prepared before the class. They preferred the easy way of learning in a one-way direction and memorising the information rather than applying this information into lifelong skills.

Some students preferred to work alone rather than work in groups. This can be overcome if the students understand the idea behind using this approach and the benefits and reflection and reflexivity in learning they will gain from using the SCL approach. There is a tool that has been suggested to enable lecturers to understand their students' learning scale. This tool for lecturers to use is the Felder-Solomon Index of Learning Styles questionnaire which will enable them to identify the students' learning. This scale measures four dimensions: visual/verbal, sensing/intuitive, active/reflective, and sequential/global. The scale result will help lecturers and instructors to identify the material for the module.

Sometimes the materials and teaching strategy and style are not prepared well and not adequate to deliver the ILOs. It is essential to prepare specific effective teaching and learning activities to ensure the students have the skills and engage in the learning activity, which might aid the development of creative thinking (Al-Zahrani, 2015).

It is recommended that students are required to have enough readiness, time, practice and training when they use SCL and interactive learning (McDevitt 1997; Cotterall 1995).

### **Implication for Research and Practice**

The results of this experiment have numerous key practical implications on different levels: firstly, literature and theoretical contribute by highlighting the practices of SCL with undergraduate university students in business studies. The result could have various theoretical implications on teaching and learning itself within university. Secondly it has implication on the students' levels and ILOs for modules that applies these techniques. Thirdly, it will help in equip students with employability skills such presentation, teamwork, problem solving, application, interaction with other colleagues ...etc. Fourthly, will help the teaching team with more creativity and more interaction from the students' side rather than boring and traditional way of teaching. In a study conducted in 2008, Wolfarth confirmed that the student-centered learning approach moves students from students to learners which gives them the feeling of being respected as independent learners and, in addition, this approach improves students' critical-thinking skills, and encourages their self-efficacy and self-directedness (Wolfarth, 2008).

### **Conclusion and future research**

The SCL approach and tools have been used widely as part of the University teaching and learning strategy. SCL will help in promoting and improving students' progress and performance at the academic level through their engagement, problem solving techniques, team and group work, and reinforcing the collaboration between students and lecturer and between -students. However, it is reflected in other areas in teaching that introducing the SCL to the Business students' Department for the

first time as a pilot with this result, is considered as a good indication of the impact of teaching strategies on students' learning, which has been using traditional teacher-centred leaning as the main teaching strategy. SCL can be more effective strategy in teaching with all its teaching approach introducing the above can build the personality, trust, interaction between lecturer and learners and among learners themselves. The benefits of SCL help in discovering students at risk at an early stage (Minnesota, 2014). Further research is required and usefully will explore the impact in the more depth =and reflect on the undergraduate students' learning in the business field, However, the impact on students in later years is greater than the impact on students in the early stage of their studies at the university, as the outcomes from the Intermediate level students (year 3 at the University) were greater than those of the Preparatory students (first year at the University). Also, there is a need for more research and longitudinal study research on the attitude of students when their lecturer applies this approach while they are studying at the University.

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