

Staff Perceptions on Implementation and Challenges of Student Centered Pedagogy: A Case Study

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Abstract: In today's world, a teacher should remain a facilitator rather than a tutor. Students should be empowered to develop problem-solving, critical thinking and reasoning skills. Student-centred learning (SCL) is the best methodology to aim for the above. The aim of this research is to study the perceptions of staff on implementing student-centred learning and its challenges with reference to the Department of IT, Higher College of Technology, Muscat. The best SCL practices implemented in the department are explored in this research. The study participants were course coordinators from three levels – Diploma, Advanced Diploma and Bachelor. The study used the stratified sampling method to choose a sample size of 24 subjects. Two different approaches (survey questionnaire and a focus group discussion) were used in collecting the data. The objective data related to the experiences of SCL implementation was processed using SPSS and summarized in tables. Google Cloud Speech-to-text API was employed to analyse the recordings of focus group discussion. The research results show that SCL is more effectively implemented in Advanced Diploma & Bachelor levels compared to Diploma levels. Among the challenges reported are: difficulty in English language, cultural differences, decreased reading habits, lack of adequate facilities, students' resistance, etc. This research recommends that all stakeholders in education should encourage students to be self-focused, active and life-long learners.

Keywords: Student centred learning, active learning, student centred learning challenges, Open Education Resources

1. Introduction

“If you tell me, I will listen. If you show me, I will see. But if you let me experience, I will learn” (<http://www.wlink.com/~dondark/hrd/history/chinese.html>). These inspiring quotes from the Chinese philosopher Lao-tzu in the 5th century marked the beginning of the first active learning philosophy. Indeed, gaining experience is the most important part of our life. However, the majority of our classrooms have still the traditional pedagogical teaching environment where the student participation is not predominant. One can nevertheless ask: what is wrong with listening to a lecture? It is because that studies dating back to 1885 point out that we forget almost 70 percent of what we have just read, heard, or seen? The old model of passive learning is no longer sufficient to prepare our children in today’s world (Edutopia, 2007, “Project Based Learning”). The concept of active learning has deep roots ever since Reg Revans (1907–2003) introduced it (Revans, 1982). But it was only popularized during the 1990s. In student-centred learning (SCL), students actively participate in the learning process rather than just passively listening (“Active Learning”, n.d.). Also, there is an important correlation between student attention and the active learning. Anything besides listening to a lecture is considered as active learning, which is a SCL approach (Smith, n.d.). Past research shows that the average attention time of a student in a conventional learning environment is 10-15 minutes, yet most of our lectures last for 50 to 60 minutes (Wilson & Corn, 2007). Few studies support this view but in few other kinds of literature, authors find it difficult to prove that students’ attention declines after 10-15 minutes. Because there can be individual differences in attention, this assumption cannot be generalized. The key solution to get student attention is to flip the classroom environment to a student-centred learning environment.

Student-centred learning can also be implemented through blended learning approaches. Blended learning is a combination of online learning and face-to-face student and teacher interaction. According to Horn and Staker (2014, p.175), online training helps to deliver tailor-made lectures to a classroom of mixed student levels. A multi-model blended learning approach developed by Chen (2018) resulted in the improvement of overall student skills such as reading, listening, speaking, etc. Such skills are very important for student-centred learning. Korte et.al. (2016) suggested that the fundamental thing to have a successful SCL is to teach students how to learn and to make them understand the importance of self-learning. This can be ensured by offering a special course or through other activities. If a student has the ability and motivation to learn, they will succeed in their academic and professional life. Teachers have a significant role in supporting the students to master the skill of learning. The research conducted by Abdel-Sattar (2017) with the aim of improving the involvement of students in an architecture course reported that SCL approaches improved the mathematical and research skills of students and helped them understand the course in a better way. A study was conducted by Kandi & Basireddy (2018) to evaluate the perceptions of implementing problem-based learning (PBL) to teach microbiology to medical students. Their findings stated that the cognitive skills of the students improved as the majority of the students liked PBL, which had been implemented through group discussions and presentations.

The overall objective of this paper is to investigate the perceptions of staff on SCL implementation and its challenges with reference to the Department of IT, Higher College of Technology, Muscat (<http://www.hct.edu.om>). The subsequent sections of the paper are organized as follows: Section 2 explains the background of the research; Section 3 describes the best practices of student-centred learning approaches in Department of IT, Higher College of Technology, Muscat, Sultanate of Oman. The research methodology is included in Section 4. It includes the details of the participants, research instrument, and data

analysis techniques. The demographic characteristics of the participants, their perceptions on implementing student-centred learning and its challenges are included under Results in Section 5. The discussion is under Section 6. Section 7 includes Conclusion followed by References.

2. Background

Student-centred learning has been seen as a Western idea in the last few decades (Jackson, 2015). From the time of Socrates until nowadays, there is still a heated debate regarding the conflict between two popular learning orientations: teacher-centred learning and student-centred learning (Belal, 2011). In teacher-centred learning, the teacher/instructor is the one at the central point or the significance is given to teaching. The teacher transfers the knowledge they have gained towards the students. The students follow the given instructions and remain as passive actors (King, 2011). But in the SCL pedagogy, the *learning* is placed at the core of the learning process rather than the *teaching*. The learners decide the process of learning as illustrated in *Figure 1*. The learner chooses what they like to learn, what they would do to learn, how (assistance) they would learn, and how much they must learn. The learner decides on their own learning styles and strategies. They set the learning goals and search for the resources to achieve these goals. The instructor remains just as a facilitator in the learning process (Belal, 2011). Since the learners choose what they want to learn, they become more responsible and accountable and the knowledge and skills they gain remain more extensively and permanently within them (McCombs & Whistler, 1997). The individual skills, abilities and background of the learner are also adapted to student-centred learning (McCombs & Whistler, 1997). The teacher should give more insight into encouraging children to learn from each other instead of relying completely on textbooks and on other literary

resources (Weimer, 2002). The roles and responsibilities of the teacher and the students are flipped in a student-centred classroom when compared to a traditional teacher-centred classroom. The learners decide about the content and the methodology of learning whereas the instructor must help the trainee to overcome the difficulties in the process of arriving at decisions.

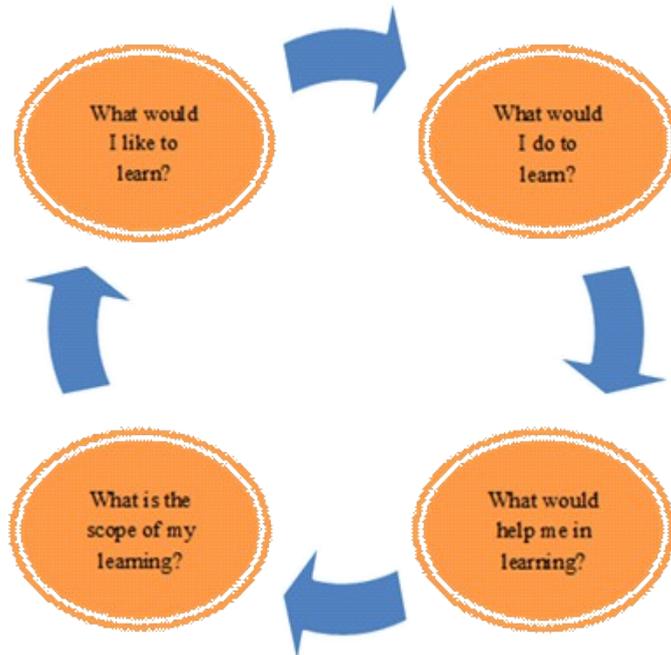


Figure 1 – Student Centred Learning Process

Methodologies used to implement SCL approaches are very important as they measure the motivation of the learners (Tseng et al., 2015). Through SCL, students acquire a broad range of skills on critical thinking, creativity, reasoning, visualization, decision making, interpersonal, etc. (Edutopia, 2007, "Project Based Learning"). According to Carl Rogers, one of the most influential psychologists of the 20th century, *a person cannot teach another person directly; a person can only facilitate another's learning* (Rogers et al., 2013).

3. Student Centred Learning Strategies – Best Practices

The case study in this research focuses on the student-centred learning practices implemented in the Department of IT, Higher College of Technology, Muscat, Sultanate of Oman. The Higher College of Technology is one of the seven colleges operating under the Ministry of Manpower (MoM) in Sultanate of Oman (<http://www.hct.edu.om>). It is the second largest educational institution in the Sultanate. The Department of IT offers four-year bachelor programs of study in five different specializations, namely: Database, Software Engineering, Information Systems, Internet & E-Security, and Networking. SCL strategies are implemented in all the specializations through a variety of modes. Few of these are listed below:

3.1. Group Projects & Presentations

Doing projects is a real-life experience, as it requires comprehensive exploration of a real-world topic. Project-based learning is an SCL approach, which enables a student to acquire deeper knowledge to solve real-world problems (Philips, 2014). Starting from Year 2, students are required to do a project every year. Even though a supervisor is assigned as a mentor, students do by themselves the distinct phases of the project such as data collection, requirements specification, design, implementation and testing of the project. This helps the students acquire a host of skills in reading, writing, analysing, critical thinking, teamwork, problem solving, innovation, time management, etc. In addition, at the end of the project, the student must demonstrate the project in front of panellists. The presentation skills are also improved through this type of assessment. The experience of doing a project enables a student to become life-long learners.

3.2. Self-Study Topics

In every course topic, few sub-topics are identified as self-study topics. Lecturers provide the necessary guidelines to students on how to study these topics. Students utilize the resources available in the library, or open resources available on the web and study the topics. These self-study topics are assessed through quizzes, assignments, or other activities. Sometimes, students are asked to incorporate the self-study topics in the projects.

3.3. Course Customization

A few courses in the department are designed in such a way that all the assessments are completely based on student activities as an alternative to the Final Examination system. For example, the course 'Research Methodology', which is taught in Year 3 follows a continuous assessment pattern where a student's progress is monitored throughout the semester. The lecturer encourages the students to choose a topic, prepare a research paper on the topic, and present the paper at an International Conference or publish it in an International Journal. This work is very challenging and requires rigorous hard work, since the students do a detailed literature review, prepare questionnaires, write the paper and defend the findings in a conference. But it is also one of the most academic experiences they ever get. Each student is assessed differently.

3.4. Integration of MOOC (Massive Open Online Courses)

Collaborative learning is an effective learner-centred approach particularly implemented in online courses (Tseng et al., 2015). In such environments, instructors just provide the necessary guidelines for the enrolled learners. Moreover, most of the online courses provide a feedback / comments section in which the learners clarify their doubts regarding the course from peer learners or the course instructor. Nowadays, the world's best universities offer MOOC's to all people around the world via the web. EdX, Coursera, UdaCity, Udemy, etc. are

some of the MOOC providers (<https://www.mooc-list.com/>). In the department, the course coordinators identify short online courses whose course outcomes match with the courses offered in the department. Then, students are asked to complete such short MOOC courses as part of the assessment. This enables students to have an exposure to courses offered by other Universities around the world.

3.5. iLearning

The Department of IT is a member of Oracle Academy. The academy offers a variety of resources to students and educators. Being a member of the academy, the IT department integrates the academy curriculum into different courses. These curricula are self-explanatory, i.e. the students read and practice by themselves with the support and guidance of the instructors. Moreover, the academy provides iLearning, an enterprise Learning Management System (LMS) to manage, deliver, and track training for online and classroom-based environments (<https://ilearning.oracle.com/ilearn/en/learner/jsp/login.jsp>). Courses on database concepts, SQL language, PL/SQL, Introductory Java, Advanced Java etc. are offered in iLearning. Students can perform lab sessions in cloud-based software such as APEX provided by iLearning. In this iLearning environment, online quizzes are part of every chapter. Students understand the concepts explained in each chapter and attempt the quiz. The assessment is done immediately, and students can view their results. This environment is very effective as an SCL approach.

3.6. E-learning portal

Every course resource is also hosted on the e-learning portal of the department. The portal includes course delivery plans, course materials, class activities, online quizzes, assignments, etc. Student logs, activity reports, activity access reports, course participation reports, activity completion reports are monitored by the lecturers. Every week

the top 10 users are displayed in the portal. This encourages students to use the portal.

3.7. Open Educational Resources (OER)

Most of our courses are designed as OER on the e-learning portal. Relevant and valid resources are posted on the portal, which help students understand the topics. These are OER available on the Internet. Also, the department faculty prepares short customized video tutorials on selected courses/topics.

3.8. Other Classroom Activities

Group Discussions, online quizzes, individual/group activities, problem solving, case studies, etc. are organized as part of SCL.

4. Methodology

4.1. Participants

The target population of the study were the course coordinators of the Department of IT, Higher College of Technology, Muscat. The study used the stratified sampling method to select the participants since the study wishes to observe the differences between SCL implementation and challenges in various program levels. Thus, the course coordinators were divided into three different strata (Group 1, Group 2 & Group 3) based on their coordinator-ship level, namely, Diploma level, Advanced Diploma level and Bachelor level. Then the participants were randomly selected from each stratum. Group 1 was comprised of 10 Diploma level course coordinators, Group 2 was comprised of 7 Advanced Diploma coordinators and Group 3 consisted of 7 Bachelor level course coordinators.

4.2 Research Instrument

Two different instruments were used in this research for data collection. A questionnaire survey was first distributed among the participants to collect the feedback related to their perception and experiences of SCL in the department. A five-point scale from 1 'Strongly Disagree' to 5 'Strongly Agree' was used to measure the feedback. Later, a focus group discussion (FGD) was conducted to gather the data related to SCL challenges in the teaching and learning process in the department. FGD was chosen as the research instrument for collecting the challenges in order to foster more interaction among the participants in comparison to the questionnaire and individual or group interviews.

4.3 Data Analysis Techniques

The data analysis of the questionnaire was conducted through SPSS to describe the characteristics of the participants and to measure the effectiveness of SCL. In FGD, the data collected was subjective in nature. So, the researcher with the help of the moderator recorded the discussions, opinions, suggestions, etc. The whole discussion was converted into text using Google Cloud Speech-to-text API, from which the conclusions and summary were drawn (<https://cloud.google.com/speech-to-text/>).

5. Results

5.1 Demographic Characteristics of Participants

The study target population of FGD were twenty-four course coordinators placed in three groups. In Group 1, there were 7 male staff and 3 female staff. In Group 2, 4 were male staff, and the rest were female and in Group 3 were involved 5 male staff and 2 female staff. *Table 1* shows the percentage distribution of participants in terms of coordinator-ship level and gender.

Table 1. Percentage distribution of participants by coordinator-ship level and gender

		Number	Percentage
Coordinator-Ship Level	Diploma	10	41.6%
	Advanced Diploma	07	29.2%
	Bachelor	07	29.2%
	Total	24	100.0%
Gender	Male	16	66.67%
	Female	08	33.33%
	Total	24	100.0%

5.1. Perceptions & Experiences of Implementing SCL

The questionnaire was divided into three categories, questions on SCL Awareness, Effectiveness, and Mode of SCL activities implemented in the department.

SCL Awareness

The opinions of the participants on SCL Awareness is summarized in *Table 2*.

Table 2. SCL Awareness

SCL Awareness		Group 1					Group 2					Group 3				
		SD	D	U	A	SA	SD	D	U	A	SA	SD	D	U	A	SA
I am aware of SCL activities	No	0	0	1	7	2	0	0	0	2	5	0	0	0	1	6
	%	0	0	10	70	20	0	0	0	28.6	71.4	0	0	0	14.3	85.7
I possess enough skills to implement SCL activities in my course	No	0	0	3	4	3	0	0	0	4	3	0	0	0	2	5
	%	0	0	30	40	30	0	0	0	57.1	42.9	0	0	0	28.6	71.4
I know how to assess SCL activities	No	0	0	5	3	2	0	0	1	4	2	0	0	0	4	3
	%	0	0	50	30	20	0	0	14.3	57.1	28.6	0	0	0	57.1	42.9
I know about the challenges of implementing SCL in my course	No	0	0	0	3	7	0	0	0	1	6	0	0	0	0	7
	%	0	0	0	30	70	0	0	0	14.3	85.7	0	0	0	0	100

SCL Effectiveness

The opinions of the participants on SCL Effectiveness are summarized in Table 3.

Table 3. SCL Effectiveness

SCL Effectiveness		Group 1					Group 2					Group 3				
		SD	D	U	A	SA	SD	D	U	A	SA	SD	D	U	A	SA
SCL increases the confidence of a student	No	0	1	3	3	3	0	0	0	4	3	0	0	0	0	7
	%	0	10	30	30	30	0	0	0	57.1	42.9	0	0	0	0	100
SCL increases the motivation of a student	No	0	2	3	2	3	0	0	1	4	2	0	0	0	1	6
	%	0	20	30	20	30	0	0	14.3	57.1	28.6	0	0	0	14.3	85.7
Students will focus more on learning if SCL is implemented in courses	No	0	2	4	3	1	0	0	0	6	1	0	1	2	4	0
	%	0	20	40	30	10	0	0	0	85.7	14.3	0	14.3	28.6	57.1	0
Students will become more responsible and committed	No	0	1	1	3	5	0	0	0	6	1	0	0	3	4	0
	%	0	10	10	30	50	0	0	0	85.7	14.3	0	0	42.9	57.1	0
The majority of my students are interested to participate in SCL activities	No	1	1	2	4	2	0	0	1	4	2	0	0	0	4	3
	%	10	10	20	40	20	0	0	14.3	57.1	28.6	0	0	0	57.1	42.9

Mode of Implementation of SCL Activities

Table 4 shows the mode of implementation of SCL activities.

Table 4. Mode of implementation of SCL activities

Mode of implementation of SCL activities		Group 1					Group 2					Group 3				
		SD	D	U	A	SA	SD	D	U	A	SA	SD	D	U	A	SA
I use Open Educational Resources (OER) to prepare assignments.	No	0	5	3	2	0	0	0	2	4	1	0	4	1	2	0
	%	0	50	30	20	0	0	0	28.6	57.1	14.3	0	57.1	14.3	28.6	0
My students are involved in online discussions/online quizzes	No	2	5	0	2	1	1	2	2	1	1	0	0	1	5	1
	%	20	50	0	20	10	14.3	28.6	28.6	14.3	14.3	0	0	14.3	71.4	14.3
I include problem-based learning in my course	No	0	0	0	7	3	0	0	0	0	7	0	0	0	2	5
	%	0	0	0	70	30	0	0	0	0	100	0	0	0	28.6	71.4
Small group-activities are part of my course	No	3	2	0	2	3	0	0	0	1	6	0	1	0	2	4
	%	30	20	0	20	30	0	0	0	14.3	85.7	0	14.3	0	28.6	57.1
I encourage discussions in class	No	0	0	0	8	2	0	0	0	7	0	0	0	0	3	4
	%	0	0	0	80	20	0	0	0	100	0	0	0	0	42.9	57.1
I encourage students to solve problems on board	No	0	0	0	7	3	0	0	4	2	1	0	0	2	5	0
	%	0	0	0	70	30	0	0	57.1	28.6	14.3	0	0	28.6	71.4	0

5.3.Challenges of the SCL Approach

The FGD investigated the major challenges arising during the implementation of SCL in the Department of IT, HCT. The moderator encouraged lively discussions and honest opinions among the participants. The assumed challenges that were investigated by the research included the Communication / Language barrier, Cultural

differences, Less Reading Habits & Lack of Well-Equipped libraries, Semester Duration, Class Strength/Numbers, Resistance from Students and Non-Availability of Smart Devices. The following summarizes the opinions of the participants.

Communication / Language barrier – The official language of Oman is Arabic. So, the medium of instruction in a majority of the primary and secondary schools in Oman is Arabic with a few exceptions in the case of private schools. The majority of the participants in all three groups pointed out that the students find it difficult to understand and communicate in English since the medium of instruction in higher education institutions is English. Before joining the Post-foundation courses, the students go through a Foundation year where they study English, IT, and Maths courses. But still, the students lack communication / writing skills in English, particularly when it comes to technical terms. So, the participants agreed that when a group activity / discussion is conducted, students find it difficult to convey their opinions and comments. This affects the discussion negatively and hence their performance. Arabic speaking participants in Group 1 commented that when they translated the key points in Arabic, the rate of participation of students in the discussion improved as they were able to understand the concepts better. Group 2 & 3 participants pointed out that the communication of students in the Advanced Diploma & Bachelor level is better compared to the Diploma level. But still, it must be improved.

Cultural differences – According to Arab culture, and especially in Oman, young women are usually reserved to talk in public. Male participants in Group 1 & 2 commented that female students often feel very shy to face the class when engaged in presentations, debates or any discussions, particularly in mixed classes. But female participants of the above groups had a blended experience that sometimes active participation is observed among female students and sometimes not. The majority of the Group 1 participants also commented that when the teacher gives opportunities to solve some questions on board, the

participation is found very less from the female category. However, one female participant in Group 1 suggested that there are exceptions with female students more actively participating in such scenarios. Also, for any SCL oriented group activities, students of the opposite gender are hardly grouped together (Emenyeonu, 2012) as part of the customs and beliefs in Oman. This affects the process of active learning. Group 1 and 2 participants agreed to the above point. But Group 3 participants commented that sometimes female students in some batches are active and work together with their male classmates in project / group discussions. Also, as per the past records and experiences, usually female students excel in assessments and the rate of female students successfully completing the bachelor's degree is high compared to their male counterparts. So, a majority of the participants suggested that if opposite genders were able to work together, with the support of female students, the male students would be able to understand the concepts better and be involved actively in the discussions.

Less Reading Habits & Lack of Well-Equipped Libraries – From the past decades, teachers share a perception that the reading habits of people in the Arab world are poor (Rajab, 2015). Many researchers argue that the main reason for poor reading habits is the oral nature of Arabic culture, which gives more importance to recitation. All the participants in Group 1 commented this to be a major challenge. One participant in Group 1 said that “I continuously advise my students to visit the library and to read relevant books”. But they are not prepared to read and understand. Another participant in Group 1 commented that sometimes they are not properly reading the questions itself during exams and they call the attention of invigilators to explain the questions to them. Two Group 2 participants had the opinion that students just memorize the PowerPoint slides or notes and reproduce them during exams. So, they are not able to solve indirect questions as they are not that capable to write differently from what they memorized. When other participants were asked about their opinion on this, the majority agreed to it with few exceptions. One participant in Group 3 said that “I

assign separate marks for decent writing and proper referencing, and this forces the majority of the students to refer to library books to complete the assignments / projects". Among the participants, about 85 percent responded that sometimes the contents of the textbooks or reference books (examples, scenarios, illustrations, etc.) did not match with the local scene in Oman as most of the authors are from Western countries (Emenyeonu, 2012). As a result, the students felt difficulty in understanding the concepts through such examples.

To promote the reading culture of students in Oman, the country has taken several initiatives including a mobile library which was launched in December 2013 (Times of Oman, 2015). There is a shortage of public libraries in Oman (Al-Musalli, 2014). Even if more libraries were established, the students would hardly have time to read books. The social media has influenced them so much that after the class hours, they wish to spend time playing with the mobile phones.

Semester Duration – According to almost all participants, the duration of the semester is also a key barrier in implementing SCL activities. Most of the semesters have 12-13 weeks of teaching. But due to holidays (Eid & Ramadan), the effective teaching hours are further decreased. So, all the participants pointed out that they find it difficult to cover the course outcomes if they allocate time for presentations, group work, and assignments. Thus, in this scenario, teachers are not able to dedicate much time to student-centred learning approaches such as focused group discussions, debates, field trips etc. One participant in Group 3 commented: "When I have less students in a class, I am able to give more SCL activities, and I found that students actively participate in such activities, particularly if the class consists of only female students."

Class Strength (Numbers) – This is yet another challenge for initiating presentations, seminars, or other SCL-related activities. About 95 percent of the participants in Group 1 said that the majority of the classes involve an average of 25-30 students. With this class strength/number, it is challenging to schedule individual / group

presentations as it takes more lecture days to complete such activities. The opinion of Group 3 participants was that if the course is more practical-oriented, activities such as short assignments or projects are given to students to solve by themselves at home. But Group 1 & 2 participants reported that they conducted short activities in the class itself and the teacher assisted the students in the completion of such activities. So, a class with a larger number of students negatively affects these activities as sometimes the teacher will not be able to clear the doubts of all students within the stipulated time.

Resistance from Students – The majority of the students still believe in traditional teaching methods, where the teacher has the key role in the process of teaching and learning. Even though the teacher is motivated to involve students in different SCL activities, still a majority of them wish to sit and listen to their teacher, as a kind of spoon-feeding. The participants had a mixed opinion about this challenge. As per a Group 1 participant, she reported: “I call my students to solve the activity questions on board, and they happily participate. Sometimes, the same students wish to attempt again”. The other Group 1 participants agreed to this point that sometimes there is a rough starting, but after a few volunteers, then the rest of the students also participate. Participants in Group 2 & 3 had a different opinion, namely that the majority of the students believe that the teacher is still the sole authority in the classroom. One participant in Group 3 reported: “When I asked one of my students to solve a problem, he solved it, but still the other students want me to explain it again. So, the students believe that only teachers have the knowledge and everything should come from them.”

Network Strength, Availability of Smart Devices, Free Access Labs, etc. – Sometimes, technology itself serves as a barrier to implement and progress on SCL methods. The availability and the high-bandwidth of the Internet are very essential to have technology integrated SCL approaches. Almost 99 percent of the participants agreed that they face a lot of difficulties in labs when conducting SCL

activities. A Group 3 participant commented that, “When I remind the students about the deadline of assignments in class, they say that there aren’t enough free access labs to complete the assignments”. The majority of the Group 1 participants reported that we cannot expect all diploma level students to own a laptop. Teachers do not have time to spend dealing with low-bandwidth or equipment failure issues. Students must be provided with enough labs, for practice, which are equipped with the latest technologies.

6. Discussion

The study findings indicate that almost 90% of Group 1, and 100% of Group 2 & 3 respondents are aware of SCL activities. Group 2 & 3 coordinators were more experienced than Group 1, which consists of Diploma level coordinators. Almost 100% of Group 2 & 3 reported that they are confident that they have enough skills to implement SCL, whereas only 70% of Group 1 were confident. Regarding the assessment of SCL activities, there were mixed opinions among Group 1 & 2. Around 50% of Group 1 and 85.7% of Group 2 only knew how to carry out the assessment. But all Group 3 participants were sure about assessment methods. All the participants were aware of the challenges of SCL implementation.

The opinions of the groups on the effectiveness of implementing SCL were diverse. All Group 2 & 3 respondents were sure that SCL increases the confidence of students, whereas, in Group 1, only 60% agreed to this. Regarding student motivation, 20% of Group 1 participants disagree, 30% were unsure, and the rest agreed. In Group 2, around 85.7% of participants agreed and the rest were unsure. In Group 3, all the participants agreed.

In Group 1, only 40% agreed that students would focus more on learning if SCL were implemented, whereas in Group 2, all the participants agreed and in Group 3, 85.7% agreed. Around 80% of

Group 1 favoured student responsibility & commitment to SCL, whereas 100% of Group 2 preferred it. However, in Group 3, only 57.1% agreed that students would become more committed, while 42.9% were unsure about it. 60% of Group 1 participants reported that students were interested in SCL activities. In Group 2, 85.7% positively responded to this, whereas in Group 3, everyone agreed.

Regarding the mode of implementation of SCL activities, problem-based learning, class discussions, and problem solving on the board were the most preferred methods of SCL activity among Group 1. Only 50% of Group 1 participants included small group-activities in their courses. Regarding online activities (discussions & quizzes), only 30% agreed. 20% agreed that they use OER in their courses. Similarly, in Group 2, problem-based learning and class discussions were the most preferred ones, followed by group activities, use of OER, class discussions, solving problems on the board and online activities. In Group 3, problem-based learning received the highest score followed by group activities, class discussions, solving problems on board, and use of OER.

Regarding the SCL effectiveness, the results are similar with other studies such as which is reported by the research in Tseng et al. (2015), where students are found to be more focused and responsible during SCL activities. As per the opinion of the respondents, Advanced Diploma students were found to be more focused on learning than Diploma & Bachelor students. Regarding SCL challenges, similar findings are reported by the study conducted in Oman (Emenyeonu, 2012) where language, cultural differences, less reading habits, student resistance etc. are the major barriers in implementing SCL. However, another study conducted in 2014 (Al-Musalli, 2014) among university students in Oman reported that Omani students read more in their mother tongue than in English. Consequently, it might be untrue to comment in general that the students have less reading habits.

This study strongly recognizes the non-availability of resources as one key challenge as reported by the research conducted among higher

education institutions in Eriteria (Tekle, 2017), which states that the availability of resources affects the practice of SCL. Time constraints pose a significant issue in the implementation of student-centred learning activities as reported in the literature (Seng, 2014). According to Seng, the respondents stated that it takes a lot of time to complete the activities as part of SCL, thereby serving as a difficulty to complete the topics within the time allotted. Overall, our research is consistent with the previous studies carried out in the similar domain.

7. Conclusion & Recommendation

To implement a student-centred classroom, the instructors must be willing to prioritize the learning, moving away from traditional teaching methodologies. The instructor, being a facilitator, can help the learners to set a goal and to achieve it through self-confidence and improved skills. Instructors can also help the learner to identify the best method of study, suitable to each learner. In a student-centred classroom, the learner is responsible for their own learning. They set their goals, identify the strategies to achieve these goals, and do self-assessment. The instructor just remains as a facilitator who reviews the learning strategies, assessment methods, resources, etc. chosen by the learner.

To sum up, this study investigated the perceptions of staff regarding the implementation and challenges of Student-Centred Learning in the Sultanate of Oman. The study participants were the course coordinators from three levels – Diploma, Advanced Diploma and Bachelor of the Department of IT, Higher College of Technology. The best SCL practices implemented in the department were explored in the research. The study used the stratified sampling method to choose a sample size of 24 subjects. Two different approaches (survey questionnaire and a focus group discussion) were used in collecting the data. The objective data related to the experiences of SCL implementation was processed using SPSS and summarized in tables.

Google Cloud Speech-to-text API was employed to analyse the recordings of focus group discussion.

The results show that SCL is more effective at the Advanced Diploma and Bachelor level than at the Diploma level students. Such students tend to be more serious about their studies, and they actively participate in the learning process. When in a reduced class size, they are found to work comfortably in groups, sometimes irrespective of their gender, under the close monitoring of the course lecturer. The awareness related to SCL among the course lecturers was comparatively better at the Bachelor level than at the Diploma & Advanced Diploma level.

The majority of the course lecturers at the Diploma & Advanced Diploma level found to need more details when dealing with the assessment of SCL. Therefore, it is required to empower them with suitable training to shift towards a learner-centred approach of teaching rather than the traditional ones. Problem-based learning was found to be the favourite SCL activity among all the groups.

Regarding the challenges, the English language level of the students needs to improve in order to empower them to read and understand the study materials. Also, improvements in student support services such as availability of free-access labs for practice, adequate network connectivity, digital resources etc. should be given due consideration. Overall, the culture of life-long learning must be encouraged among the students and, in order to ensure this all the stakeholders (students, teachers, parents, administrators, staff, etc.) must work together.

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