TL EX 20

Teaching and Learning
EXHIBITION
معرض التعليم والتعلم الجامعي 20

Action Research

Posters

By faculty members .. For students' learning

جامعة الإمام عبدالرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY

عمـــادة تطويــر التعليم الجـامعــي
Deanship of Academic Development

Action Research Posters
Teaching and Learning Exhibition 2020

بسم الله الرحمن الرحيم

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Message from the Deanship of Academic Development*

Dear Respected Faculty Members,

On behalf of the Deanship of Academic Development, welcome to your Teaching and Learning journey at Imam Abdulrahman bin Faisal University. Our Deanship, in coordination with your colleges and departments, is honored to guide and assist you along the way.

The outlook in higher education has never been brighter or more complex. We, as faculty members, are tasked with educating 21st Century students with field and general knowledge, communication, technological and interpersonal skills, and values for lifelong learning rooted in our faith and culture. While there are demographic similarities across all generations, this generation of students is more digitally connected than any before, more global and facing more challenges. Higher education in Saudi Arabia is at the heart of this challenge to nurture the best doctors, teachers, chemists, engineers, and Islamic scholars leading to a stronger Kingdom on the path toward Vision 2030.

Quality teaching and learning in higher education is an intricate balance and alignment of administrative support, student-centered curriculum, measured outcomes, well-placed resources, teaching strategies, and assessment choices all within a positive environment led by you, the faculty member. Without the faculty members' full engagement and motivation, true education cannot take place.

The challenge then is ours, to provide excellence in teaching and learning which will equip our future generation for Vision 2030—a knowledge-based economy with 21st century graduates in the lead. A challenge we are confident that our valuable faculty members can meet and exceed. Best wishes on your journey to excellence!

Sincerely,

Dr. Mohammed S. Alkathiri

Dean, Deanship of Academic Development

*Deanship of Academic Development (2019). *Teaching and learning for excellence: A handbook and instructional reference for members of the academic community*. Retrieved from
https://www.iau.edu.sa/en/administration/deanships/deanship-of-academic-development/programs-and-services/training-content-in-teaching-and-learning

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The Effect of Cooperative Learning on Students' Engagement

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College of Arts, Imam Abdulrahman Bin Faisal University

Abstract

This study is part of an action research project that aims at investigating the impact of cooperative learning on students' engagement in classrooms. 21 students were involved in an action research study in which cooperative learning methods were employed in class. Observation of participation rate and collection of students' feedback were used as primary sources of data for the current study.

Findings include an increase in number of participants who were involved in group discussions. In addition, positive feedback with focus on motivation increase was reported.

Overview

The process of learning and teaching in the classroom presupposes the involvement of instructors and students. Lack of engagement can be frustrating for both teachers and student and might negatively impact learning and teaching (Hagenauer, Hascher, & Volet, 2015). Nevertheless, lack of student engagement is a world-wide problem (Fritschner, 2000). The current sample of this study is a whole class of 21 English department students who are second language learners of English. A number of these students were reluctant to participate in classroom discussions during lectures. Therefore, there was a need for intervention which aims at engaging all students in discussions.
The intervention followed Gibbs reflective learning cycle (1988) resulted in modification of some teaching styles. Cooperative learning techniques were chosen in this case.

Research Aims

To examine the impact of cooperative learning on students' classroom engagement.

Research Activity

Students were divided into groups of three and were given the task of jigsaw reading. Each member was responsible for reading a section and explaining it to the other two members. Members from different groups who were reading the same section were also asked to sit together and discuss the assigned text with the aim of checking for understanding.
Students were systematically switching groups in order to explain their sections and at the same time listen to explanations of other reading sections from other members.

Jigsaw reading
- Students were divided into groups of three.
- Students were assigned different sections of reading.
- Students read their assigned sections silently.

Checking for understanding
- Students were grouped with members who read the same section.
- Students discussed their part to check for understanding.

Knowledge exchange
- Student started switching and explaining ideas from the different sections they read to each other.

Outcomes

There were a number of intended outcomes; this includes student's engagement and quality of learning experience. However, there were also some unintended outcomes which includes utilization of interpersonal and social skills.

Main content of Outcomes

■ 100% students' participation

■ Less teacher's talk

■ Utilization of interpersonal skills

Impact

The effect of this intervention can be seen in the percentage of students' participation and students' reflections on cooperative learning. All students were engaged in active discussions with 100% participation rate. 10 participants provided feed back on their experience with cooperative learning. The following includes quotes from the participants highlighting areas of strength and suggestions for improvement:

"- Enhances the cooperation and social skills
-Develop the motivation of sharing ideas and learning .
-Improves solving problems skills ."

"-Groups should be arranged properly in class that helps interactions between students.
-Build trust and promote open communication that helps quiet and bashful students to join ."

Sample 1

Samples from student's reflection on their experience with cooperative learning

Sample 2

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Collaborative Learning: Practice and Feedback

Dr. Faez Al-Shihri, Professor and Chair, Dept. of Urban and Regional Planning
College of Architecture and Planning

Abstract

Collaborative learning as a teaching method was applied to a course to improve students' motivation to learn issue in depth. After the end of the course, an evaluation was done with a sample of students to assess the effectiveness and ways for improvement. Most students were positive about the approach and offered suggestions for improvement.

Overview

Collaborative learning (CL) is an approach to teaching and learning that involves groups of students working together to solve a problem, complete a task, or create a product. According to (Gerlach, 1994), "Collaborative learning is based on the idea that learning is a naturally social act in which the participants talk among themselves It is through the talk that learning occurs."

CL was applied in the class on 'New Towns and Recent Urban Development' for fifth-year students of Urban and Regional Planning to improve learning by students. The course deals with theories and issues in new towns development, their history, typologies and roles in regional and national development. Recent developments in Saudi Arabia and future directions of urban planning and design of new towns are explored.

Research Activity

The class of 29 students was divided into five groups. Each topic of the course was divided into five parts. Each group was assigned to study one of the parts, collect and analyse information about it, and present it to other groups. A Q&A session followed each presentation.

A survey was done on 15 students assess how their perception about the effectiveness of collaborative learning. An open-ended questionnaire was used.

Research Objectives

It was expected that introducing CL would have a positive impact on the students learning in the following ways:

- Increase students' motivation to learn.
- Encourage students to probe deeper into issues for knowledge.
- Develop skills for cooperation, communication and interaction.

The survey was done to:

- Assess effectiveness of CL.
- Identify ways for improvement.

Impact

❶ Most students were positive about the impact.

❷ Only one student disagreed. He said he was more comfortable working alone.

❶ What do you think of the CL method?
  - Excellent.
  - Makes students active, express opinions, competitive.
  - Distributes task among students in a group according to skills.

❷ What did you gain from this method?
  - Knowledge.
  - Research and coordination skills.
  - Self-confidence.
  - Skills for cooperation and leadership.

❸ What improved in terms of learning and development in carrying out the research project?
  - Communication skills.
  - Leadership skills.
  - Research and writing skills.

❹ Would you like to apply this method again in another course?
  - All students said 'yes', except one, who said he prefers to work alone.

❺ What are the pros and cons of using the method of "expert groups"?

Pros	Cons
Develops cooperation, research, presentation skills	Over-dependence on some members of group
Stimulates active learning	Fatigue at end of class
Raises diversity of ideas	Workload on students

❻ What do you think about improving the method of learning ?
  - Random assignment of students to groups.
  - Distribution of handouts before lecture.

Future Developments

❶ Prior distribution of handouts.

❷ Random assignment of students to groups.

❸ Attention to individual contribution to groups.

References

Gerlach, Jeanne. (1994). Is this collaboration?. New Directions for Teaching and Learning. 1994 (59):5 - 14. 10.1002/tl.37219945903.

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The impact of early versus late clinical exposure on Respiratory Care (RC) students' clinical learning skills at IAU

Dr. Noor Al-Khathlan, Assistant Professor

College of Applied Medical Sciences, Imam Abdulrahman Bin Faisal University

Overview

Clinical environment education including practical and clinical skills exposure and training is an essential part of the curriculum for medical and allied health profession students including Respiratory Care (RC) students at IAU. The nature and timing of clinical education in addition to the availability of capable clinical instructors are crucial factors that play a vital role in student's clinical learning experiences and skills development in all healthcare discipline (Chan, 2001). According to Mafinejad et al. (2016) starting clinical exposure in the early years of any program can enhance students' perception of the role that they will perform in the future (2016). The current practice in RC department is to start clinical practice as early as the second semester of the second year. However, recently due to the shortage of clinical instructors in RC department we were enforced as administrators to delay the start of clinical training for one batch of students to become in the first semester of their third year. This change urge the need for further investigation to measure the consequences of such action.

Study Aims and Objectives

This study aims to determine the impact of early clinical exposure (ECE) versus late clinical exposure (LCE) on RC students' clinical learning skills. The objectives are;

1. To explore if differences in perceptions and clinic practice grades exist between ECE and LCE groups.
2. To determine whether early or late clinical exposure strategy in clinical training is more effective.

Research Activity

A cross-sectional observational study was conducted within the academic year of 2017/2018. A sample of Eighty-four students were enrolled from the Bachelor of Science in RC program, who either had ECE and LCE. Data were collected from RC students which included a clinical learning environment inventory (CLEI) pre-validated questionnaire consisting of 42 items that was used and classified into actual and expected clinical exposure, and clinic practice course grades. The data were analyzed using SPSS 23 and 24 and PRISM 7. Mann-Whitney and Kruskal-Wallis tests were used. Results were considered statistically significant if the P value is < 0.05.
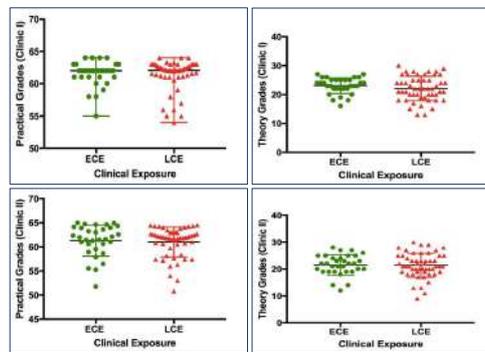
Figure 1: Comparison of clinic practice grades.

Outcomes

Eighty-four RC students (42 males and 42 females) were included in this study. Of them, 32 students were ECE group and 52 students were LCE group. Clinic practice grades (practical and theory) were obtained for all. However, only 71 students (84.52%) complete CLEI questionnaire. Of them, 28 students (39.4%) were exposed to clinic early, and 43 students (60.6%) were exposed to clinic late. Based on the clinic practice course grades (practical and theoretical), the study showed that there was no significant difference between both groups (Figure 1).

References

Chan, D.S.K (2001) 'Development of an innovative tool to assess hospital/learning environments'. Nurse Education Today (21) pp. 624–631.

Mafinejad, M.K. (2016) 'Medical students' attitudes towards early clinical exposure in Iran'. International Journal of Medical Education, (7) pp. 195–199

Based on the questionnaire, there were statistically significant differences between ECE group and LCE group in only 5 questions about their actual experience, and, 8 questions for their expected experience (Table 1).

Actual Experience	ECE mean rank	LCE mean rank	< P value
I pay attention to the communication among staff.	41.54	32.40	0.047
This clinical placement is a waste of time.	29.38	40.31	0.023
This is a disorganized clinical placement.	25.57	42.79	0.000
The preceptor(s) seldom go around talking to me.	27.68	41.42	0.004
I have little opportunity to pursue my interests.	28.95	40.59	0.014
Expected Experience	**ECE mean rank**	**LCE mean rank**	**< P value**
I put effort into what I do.	42.46	31.79	0.014
I am dissatisfied with what is done.	29.79	40.05	0.030
I am generally allowed to work at my own pace.	41.82	32.21	0.033
The preceptor(s) try his/her very best to help me.	41.54	32.40	0.028
Innovative activities are always arranged for me.	42.29	31.91	0.025
The preceptor(s) help me whenever I have trouble.	41.82	32.21	0.023
This is a disorganized clinical placement.	27.59	41.48	0.003
This clinical placement is boring.	28.84	40.66	0.010

Table 1: Significant difference between ECE and LCE for actual and expected experiences.

Conclusion

The finding showed that there was no significant difference between ECE and LCE, in regard to clinic practice grades, while there was a significant difference in their perceptions. We suggest conducting a larger study that investigate the status of clinical education more broadly and among larger sample size from different schools in the kingdom.

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Research in Action: Motivating the Motivated Students

Philline Deraney, Vice Dean for Quality and Assistant Professor
Deanship of Academic Development

Abstract

After noting and documenting a drop in motivation and focus, active learning was used for each and every class with advanced-level students in a first year Learning Skills Course. Active Learning, 'doing' and 'thinking' rather than just watching or listening, was used to teach and practice each concept in the course. After the course, the students were surveyed to receive feedback on the intervention of active learning with 79% (n=24) reporting the importance of activities in their learning Further, the student performance on the final exam and projects was excellent overall.

Research Activity

- Active Teaching of each and every concept with several activities; very short lectures.

Learning Intervention

- Daily group work, Ed tech, movement, discussions, role plays, case studies

Application

Analysis Tools

- Test results
- Survey
- Student comments

Impact

Students felt very strongly about the use of active learning in three ways:

- By asking the students their opinions and feedback, it made a positive impact on the faculty-student rapport, the learning environment, and improved motivation in the class.

- Students began to understand the importance of questioning and actively thinking about the concepts through activities.

- Finally, as shown below, the students gave positive feedback and felt they learned more through an activity-led, hands-on classroom.

Does active learning help you learn more?

Don't Know 21%

Yes 79%

Overview

In Term 1, 2019, my high-level students began losing focus, and using their devices more often than normal. So, the class completed a 'taking your temperature' formative assessment, which gave student feedback on their perceptions of the course, The students wrote, in one form or another, that they needed more 'group work,' 'tech applications or games,' and 'activities.' As a result, I decided to teach the Learning Skills course entirely through active learning—student-led activities for the second half of Term 1.

Percentage of Importance on Activities in Understanding a Lecture		
%	n	% Class
100	7	30%
80	10	43%
60	3	13%
40	3	13%

What did you learn?
The best method of learning
Fun interactive learning
It taught me a lot of skills
Critical thinking
A lot of activities, examples
To be a social person

Which activities help you learn best?
Group activities
Role plays
Anything that makes me talk
Videos
Kinesthetic activities
Listening to different experiences
Educational games

Use more activities in class?

67 Yes, More Please.

33 No, It's Enough.

Research Development

- Short-Term: Use more hands-on teaching in future classes with even more activities.

- Medium-Term: Create more action research on active learning specifically focused on 'acting out' concepts.

- Long-term: Apply to all of my teaching and learning endeavors in the classroom and Deanship—collect long-term data for publication in this area.

Long-Term
Medium-Term
Short-Term

PUBLICATIONS
RESEARCH

Research Objective

Improve student motivation to attend and be attentive in the Learning Skills Course.

❖ **Improve Motivation**

Teach by actively doing the concepts, not speaking about them.

❖ **Active Teaching**

Use student application throughout each and every class with activities that require higher order thinking skills.

❖ **Student Learning and Application**

Research Outcomes

❶ Expected outcomes that were achieved:
- ✓ Increased motivation indicated by behavior.
- ✓ Increased learning indicated by strong performance.

❷ Unexpected Outcomes:
- ✓ Shy or hesitant students participated more.
- ✓ Most students expected more activities as shown by the survey.
- ✓ Students began to know what activities specifically enhanced their learning (i.e. discussion, role play, games, etc.).

References

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Impact of Individualized Constructive Feed-forward on Students Speaking Skill Development

Mimoun Melliti, PhD

University of Imam Abdulrahman, Deanship of Preparatory Year

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INTRODUCTION

Providing constructive feedforward, which is guiding students' learning based on performance data, to students is considered even more important than lecturing. Previous research has shown that its value does not only lie in allowing students to know their mistakes, but also identify and reward specific qualities in student work, guide students on what steps to take to improve, and develop their capability to monitor, evaluate and regulate their own learning (Nicol, 2010). In order to give learners the opportunity to realize these goals, a remedial program has been set in place by the office of Assistant Department Chair for Examination and Assessment (ADCEA) at Deanship of Preparatory Year, IAU, KSA. A total of 167 struggling students from different locations, academic tracks, levels, and genders have been selected, contacted, and given individual feedforward sessions on elements of their strengths and areas of improvement by teachers. Comparing the pre and post-tests conducted to them showed a remarkable improvement in the grades of these students. Reflective feedback also gathered from these students show that they have claimed to have enormously benefitted from the speaking remedial sessions. Feedback collected from teachers and resource center coordinators too showed that not only students benefitted from the initiative but also instructors themselves who claimed the experiment assisted them in making sure students reach the intended learning outcomes. These results imply that personalized constructive feedforward given to learners is of paramount importance and efficacy in improving students grades and changing teachers practice as well as learners behavior.

Feedforward

Providing useful information to both the teacher and the student that will help them recognize where gaps in student learning are and use that data to move forward with the intent of closing the gaps.

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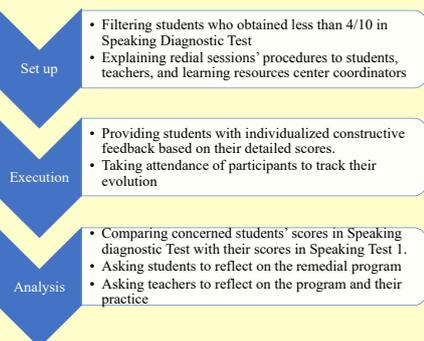Phone: +966582808127

AIMS AND OBJECTIVES

The present study aims at:
- Providing students with opportunity of assessment-based learning
- Providing teachers with opportunity to reflect on their teaching practices
- Integrating students individual needs with learning outcomes and examinations scores in giving constructive feedback to learners.

METHODOLOGY

167 struggling students (who scored below 4/10 from different locations, academic tracks, levels, and genders have been selected, contacted, and given individual feedforward sessions during weekly learning support hours by different English language teachers on elements of their strengths and areas of improvement by teachers. Students progress in Speaking Test 1 has been track to investigate the impact of the remedial sessions. Teachers and students have reflected on their learning and experience.

Set up
- Filtering students who obtained less than 4/10 in Speaking Diagnostic Test
- Explaining redial sessions' procedures to students, teachers, and learning resources center coordinators

Execution
- Providing students with individualized constructive feedback based on their detailed scores.
- Taking attendance of participants to track their evolution

Analysis
- Comparing concerned students' scores in Speaking diagnostic Test with their scores in Speaking Test 1.
- Asking students to reflect on the remedial program
- Asking teachers to reflect on the program and their practice

RESULTS AND DISCUSSION

1. Comparative study:

Results, as clearly shown in Figure 1 below, indicate that comparing students' grade before and after the remedial program, there is a remarkable increase in student' average scores. The average score of all students concerned with the study increased from 2.8 to 7.4 out of 10. This means that the average progress made is 4.6 out of 10, which definitely shows the impact of the constructive individual feedforward provided by teachers to struggling students who participated in the remedial program. It clearly indicates that personal focused feedforward that is based on students' detailed scores is effective in helping them realize positive aspects of their performance and elements that need improvement. Giving the students the chance to discuss their detailed grades using the rubric utilized in grading (Content, Organization, Sentence structure and grammar, Vocabulary and idioms, and mechanics and spelling) provided them with an opportunity for learning and assessment. This kind of formative feedforward is most valuable in improving student performance as the feedforward is timely, constructive and aligned with learning outcomes and assessment criteria.
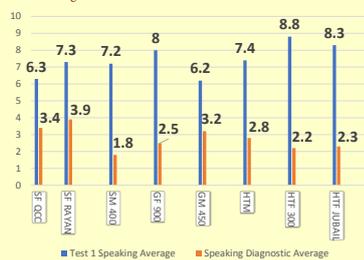

Figure 1: Students' average grades per location and test

- Test 1 Speaking Average
- Speaking Diagnostic Average

2. Reflective analysis:

Teachers who helped students realize their strengths and work on improving their weaknesses between the two tests have expressed their satisfaction with the way, atmosphere, and quality of the feedback they have given to students. Three teachers who provided the remedial sessions and three coordinators who administered the execution of the program have sent their reflections on the project. Analyzing the content of their emails shoed that the program allowed teachers to:
- provide students with detailed feedback based on their needs
- deepen their understanding and practice of giving feedback

The remedial program is also reported to have helped students:
- receive tailored and specific feedback based on their actual weaknesses in a real test
- develop their speaking skill during the practice with teachers and learning habits thanks to the tips they received

DISCUSSION

Students showed a great interest in the innovative idea of Remedial Program. They considered it as an additional chance to improve their speaking skills. The educational atmosphere which is provided at the LRSC as well as the effective assistance provided by academic advisers are the corner stone of the Remedial Program success. The students who are enrolled in this program had the opportunity to practice their language with our professional academic staff and benefited from their instructions efficiently.

Mustafa Safaey, LRSC coordinator at Health track

It was a great opportunity for the teachers to spend more time with the affected students and provide them with individual and exclusive time , care, help and attention which could not be possible in a 2 -hour class with other students. The students were able to approach the teachers easily and teachers could give one- on- one , elaborated feedback to the students on how to improve and polish their spoken language , and discuss their weak areas which needed that extra dosage

Ayesha Gulraiz, LRSC coordinator at Engineering track

CONCLUSIONS

There is no doubt that feed up and feedback are very important in learning. However, feedforward is of a great importance too as it does not only allow learners to reflect on their achievement but also provides them with the opportunity to prepare for future examinations based on real and solid data and forecast of forthcoming tasks and assignments. These implications could be drown from the current study which started from students' examination data and used learners' discussed needs to provide them with adequate and concentrated feedforward that enabled them to enhance their speaking skills in the following exam. It is true that other factors may have intervened and contributed in the achievement realize such as classroom training and learners' increased motivation and capability, but it could be said that learners who attended the remedial speaking program and who scored below average in the diagnostic test guaranteed reception of appropriate input, which enabled them to improve their speaking skills and test scores. The following step researching this topic is increasing the threshold of students concerned with the remedial program to become 6 instead of 4 out of 10 and comparing the progress made by learners who attend the program with learners who do not.

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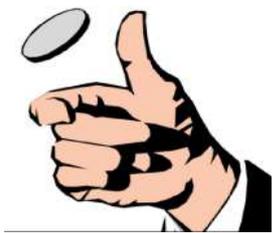
Flip Your Classroom

Dr.Mohammed Al Jumaan , MD
Emergency medicine consultant
College of Medicine, Imam Abdulrahman Bin Faisal University

Abstract

Flipped classroom is one where students are introduced to content at home, and practice working through it at school.
The main objective of this research is to educate and encourage the IAU faculty to apply flipped classroom as a teaching technique that's will improve the students understanding and enjoying the teaching sessions
We distributed a questionnaire to some of IAU faculty and students to see their knowledge and awareness of flipped classroom , in the questionnaires we explained the meaning of it if the answer is no , We found most of the faculty and the students are not aware of it .
We apply a flipped classroom in one session and we collect the feedback from both students and faculty , both of them they think it is an effective method of teaching .

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Research Activity

questionnaire distributed among group of faculty and students regarding the knowledge about flipped classroom , then we carry a flipped classroom and collect the students and faculty feedback

Learning Inventions → **Application** → **Analysis Tools**

- distributed a questionnaire among faculty and students
- A flipped classroom and collect the feedback
- The faculty and student satisfaction

Impact

Students feedback :
" best day for me ", " I never imagine it will work like this " ," I start to be interested in emergency medicine " , "I highly recommend it "
faculty feedback :
" it is easy to make the students enjoy the teaching sessions ", " I will do it in my sessions ".

Traditional Model   Flipped Model

Overview

Flipped classroom is one where students are introduced to content at home, and practice working through it at school.
In this blended learning approach, face-to-face interaction is mixed with independent study via technology. Students watch pre-recorded videos at home, then come to school to do the homework armed with questions and at least some background knowledge.
The concept behind the flipped classroom is rethink when students have access to the resources they need most.
If the problem is that students need help doing the work rather than being introduced to the new thinking behind the work, than the solution the flipped classroom takes is to reverse that pattern.

Outcomes

101 of the faculty respond to the questions , 87% of them they never hear about it .
120 students participate to the question , 88% didn't know what does it mean (figure 1)
after I did flipped classroom , all the students enjoyed it and felt satisfied , also the faculty whom attended felt the same
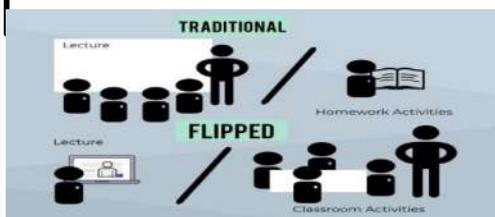
Future Development

To work with other college in the university to share the experience of flipped classroom and encourage them to apply it in their teaching sessions.

Do you know what is the flipped classroom ?
101 responses

Do you think it is an effective method of teaching at IAU
101 responses

Research Objectives

To evaluate the knowledge and the awareness of the flipped classroom among the faculty and the students of IAU .

Measure the effectiveness of applying the flipped classroom and student satisfaction

Encourage the faculty to apply it in the teaching

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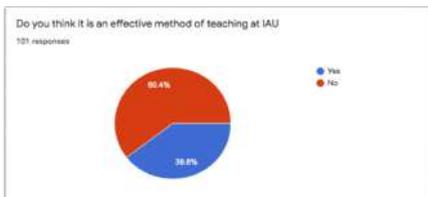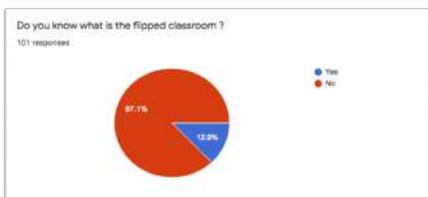
Concept Maps in Nursing Education

Rana Alameri, RN, MS, PhD

Imam Abdulrahman Bin Faisal University, College of Nursing

Abstract

Background: The use of concept maps as a teaching and learning strategy was found to be a useful tool for enhancing the critical thinking nursing education and for applying theory to practice.
Objective: to develop the student's ability to analyze complex problems, issues or needs using concept maps.
Activity: Concept map development used weekly in class assignments and tasks from finalizing main concept to attribute to linking the various attribute.
Outcome: Enhance students critical thinking skills and their ability to deal with increasingly complex health care environments

Overview

Develop learner ability to analyze complex problems, assess the relative importance of inter-connected concepts and linkages, and organize understanding of the different components into a holistic, internally consistent and logical presentation of key ideas (Daley, Morgan, & Beman, 2016).

Studies have shown that using concept maps in nursing education was effective in promoting critical thinking, clinical reasoning, integrating theory with clinical practice, and promoting self-reflection (Garwood, Ahmed, & McComb, 2018; Daley, Morgan, & Beman, 2016).

Research Objectives

Develop the student's ability to analyze complex problems, issues or needs

Enhance critical thinking skills.

Encourage active learning

Research Activity

Concept map development used weekly in class assignments and tasks that the students should do as follow:

Orientation → Application → Feedback → Poster
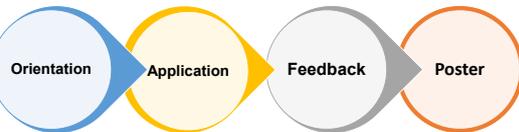
- Pre-session orientation on the objectives and workflow
- Brainstorming
- Construction of attributes
- Linking attributes
- Session feedback (students and teaching faculty)
- Final feedback

Outcomes

1. Enhance students critical thinking skills.
2. Enhance students self learning skills
3. Be able to deal with increasingly complex health care environments

Diabetic Ketoacidosis
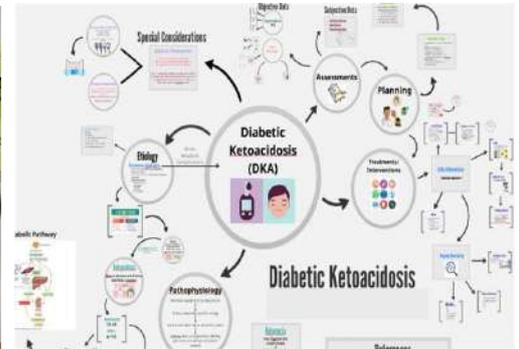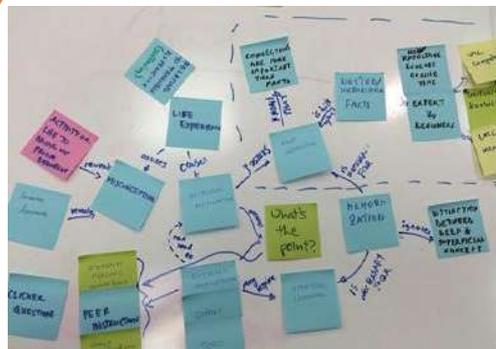
Impact

1. "It was a great experience even though it was hard in the beginning"
2. " I learned how to think outside the box and to be creative"
3. " Students reported concept mapping could facilitate the transfer of knowledge gained in the classroom to the clinical setting"

Future Developments

1. Train nursing educators on concept mapping as a tool to enhance critical thinking to meet demands of health care in the 21st century
2. Modify the teaching strategies to meet the needs for integrating concept maps in nursing education
4. Further research is needed to determine best practices for a reliable and consistent method to measure critical thinking in nursing students.
5. Further research is needed to measure the efficacy of using concept maps as a teaching and learning tool.

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Teacher-Based Strategies for the Inclusion of Shy-Students in class oral activities

,
Dr. NAIMAH AHMAD AL-GHAMDI
Department of English
College of Arts

Abstract

The present study attempts to bridge the gab and meet the class activities requirements for the inclusion of University shy students in oral class activities .As an instructor, teachers face variation and diversity among students in respect to their psychosocial needs that might lower the educational attainment of the class . Instructors ought to engage those less outgoing students and bring them out of their shell. The study adopts the theoretical orientations of Mjelve &Nyborg (2018) which stresses the role of the teacher in adopting teaching strategies that reduces shy students' anxiety ,direct focus & support group integration (identification of those group needs, integration & evaluation). The informants of the study are 32 university students at IAU, level 6 studying TC. The findings point qualitatively & quantitively to the impact of these learning strategies in engaging shy students in safe class discussions, group work, paired tasks.

Overview

Adapting the class environment to ensure that all students are included in the opportunities for learning can be challenging for teachers (Florian and Black-Hawkins 2011) and is particularly so when teachers are tailoring teaching strategies for university students with needs that require quite specific adaptations, whether on academic or social dimensions . Although shyness is not a designated special need it does imply both psychosocial and academic difficulties (Mjelve &Nyborg,2018, p.3). Shy students usually fall by the wayside of the class, left on their own, withdrawn and quiet are at risk of falling behind in attaining their academic progress. Creating a safe& friendly environment that respect their limitations, reduces pressure & encourage group integration are put at trial in a sample size of 32 students sufficient to make inferences.

Research Objectives

- To identify the problems concerning shy students 's oral activity at the university
- To bring a change in instructors ' oral teaching strategies to address these problems
- To assess how effective teaching strategies tell us about the learning opportunities for shy students in tasks that demand oral contributions

Research Activity

Inclusion of Shy S. in Teaching Strategies → Problems Identification → Integration of T.S → Evaluation of Strategies Effectiveness
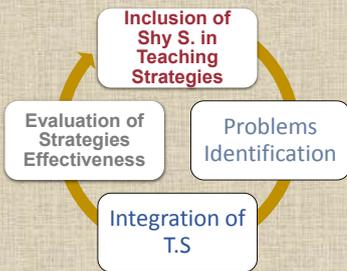
Outcomes

- Shy students problem were identified via observation /instrumental survey(psychosocial mainly /unmotivated/embarrassing direct criticism
- Caring and knowing students very well, their names proved to be a positive Teaching attitude and reduces S. S anxiety
- Safe teaching Strategies including positive feedback, assurance of no back feedback in oral discussions, group & pair activities, avoiding direct focus.
- More T.S are needed

References

Nilsen, S. (2018) *"Inside but Still on the Outside? Teachers Experiences with the Inclusion of Pupils with Special Educational Needs in General Education."* IJIE1–17.
Mjelve, H., & G. Nyborg. (2018) *"Oral Activity and Anxiety Reduction for Shy Students."* Paper presented at the 46th Congress of the Nordic educational research Association, Oslo, March 8–10

Impact

1. Shyness is a psychosocial condition Identified via the survey
2. Safe Environment helped shy students not to experience cognitive challenges anxiety reduction
3. Enjoyable group oral activities students explore their limitations, practice and open up in group& in pairs

Future Developments

1.Observational studies of shy students attitudes in language –based skills courses
2. Adjustment /adaptation of oral engaging T.S
3.Students counseling provides instructors with needed feedback

What Class Learning Activities Do You Find Enjoyable ?
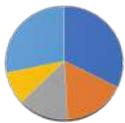
Orld Class Discssion ■ Writter Assignment ■ H.W ■ PTT ■ Oral Group Task

My Anxiety Lessen When I am Part of a Group or Assigned a Pair Task

■ Yes ■ Sometimes ■ Not Sure ■ Very Little ■ NO

Evaluation of Shy S. Integration per Oral T.S

Pair Task, Destructive Feedback, Group Discussion, Direct Focus
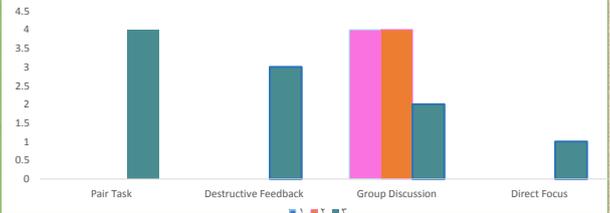
I Consider Myself A Shy Student in Class

■ Yes ■ Sometime ■ Not Sure ■ Very Little ■ No

My Instructor motivates me to participate in Oral Discussion

■ Yes ■ Sometime ■ Not Sure ■ Very Little ■ No

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An Interactive Immunostaining Procedure

Dana Almohazey, Assistant Professor
Institute for Research and Medical Consultations (IRMC)

Abstract

Immunostaining technique is a valuable tool, which students will use in their career as a scientific researcher. It allows us to better understand the structure and physiology of cells. The entire process from collecting the tissue to a successful stain may take up to a week making it challenging to perform with students. In addition, it is unlikely that students will encounter issues with the protocol since it will be provided by the instructor. Therefore, the proposed activity is *creating an interactive staining procedure with multiple outcomes.* This activity will show students the consequences of changing each variable. Using an interactive staining procedure would help students tackle these problems in a game-like environment. It will help them learn how to navigate through multiple scenarios in a short period of time at no cost.

Overview

Immunostaining of tissues and cell cultures is a valuable tool that can be used in patient diagnosis, studying cellular structure and mechanisms. These techniques require a great deal of fine-tuning to achieve the desired outcome. The original session was intended to introduce students to the principles of immunostaining and the procedures that precede it (i.e. tissue processing). Being familiar with the principle behind each process will help in navigating through the troubleshooting process. A staining procedure may take 2-3 days or even a week if the tissue processing steps are included. The procedure requires several incubation periods making it challenging to perform with students. In addition, it is unlikely that they will encounter issues with the protocol since it will be provided by the instructor.

Aims and Objectives

By the end of this session, students will be expected to describe the principles behind the immunostaining techniques.

Be able to critically think about the steps involved and identify possible causes of an unsuccessful stain.

Be able to modify the procedure and make proper adjustments to address the source or sources of error.

Proposed Research Activity

Problem → **Possible Cause(s)** → **Possible Solution(s)**
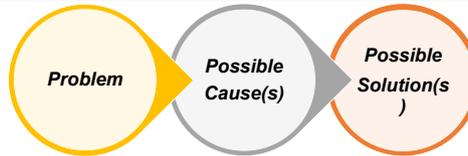
The proposed activity that I would like to add to this session in the future is *creating an interactive staining procedure with multiple outcomes*. Every time a student changes something, the result changes according to that choice. This activity will help students grasp the principles of these procedures and how to troubleshoot. It will also help students understand the consequences of each choice in each step. In addition, this activity will include examples of unsuccessful stains, in which students have to: a) figure out what could have gone wrong, and b) what can they change to reach the desired outcome.

Example:

You have just collected a tissue sample. What is the next step:
A) Permeabilization
B) Antigen-retrieval
C) Fixation ✔
D) De-paraffinization
E) Processing
F) Embedding
G) Re-hydration

What will you use for the fixation step?
A) Saline
B) Blocking Serum
C) Primary antibody
D) Formaldehyde ✔
E) Triton X-100

You performed the rehydration step: What is the next step:
A) Permeabilization
B) Antigen-retrieval ✔
C) Fixation
D) De-paraffinization
E) Processing
F) Embedding
G) Re-hydration

Example of a Supplementary Case Study:

Identify the problem in this section and list possible causes:

Hint: a positive results is dark brown.

https://blog.atlasantibodies.com

Assessment of Students

1) Students will be assessed on the first time they run the interactive protocol. A report of the selected choices will be automatically sent to the instructor.
2) However, students will be encouraged to re-run the procedure and change variables to observe how that can affect the results.
3) Students will *not* be assessed on whether they have successfully performed the procedure. Rather, they will be assessed on how they reflect on their results: analyzing the outcome and describing the possible causes and how to fix it.
4) Moreover, students will be assessed on the supplementary case studies.

Predicted Outcomes

1) Students will understand the basic principles of the immunostaining techniques and the principles of the procedures that precede them (i.e. tissue processing).
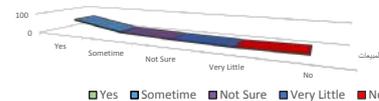2) Learn how to critically approach a problem in scientific research and perform a methodological troubleshooting.
3) Discover what variables they need to change based on each encountered problem.
4) Realize the importance of understanding the principle of these techniques.

Possible Impact

Troubleshooting an immunostaining procedure could be puzzling and sometimes frustrating specially for an early career scientist. Using an interactive staining procedure would hopefully help students tackle these problems in a fun less-traumatizing environment. It will help them learn how to navigate through multiple scenarios in a short period of time at no cost (one antibody is ~ SAR 3000).

Assessment of the Research Activity

At the end of this session, students will be requested to answer a survey about the activity and give feedback. These surveys will be evaluated to assess the usefulness of the interactive staining procedure and how to improve it.

Teaching & Learning of Sustainability in Saudi Arabia

Prof. Dr. Amani K. Hamdan Alghamdi
College of Education
In collaboration with:
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Guildford College for Higher and Further Education, UK

Abstract

Following the research conducted by Alghamdi & El-Hassan (2019), which reveals Saudi university students' needs of suggestions; C) tasks that require students to apply their resepedagogical education for energy literacy; new data has been collected from 135 university students from different disciplines for further investigation.

With the national sustainability development goals set in the Saudi Arabian Vision 2030, this investigation would reflect the progress made in sustainability development education since 2017 when the aforementioned research was first conducted.

To collect usable data, an inquiry-based assignment, titled: "Sustainability & restoration of earth's health in economic, social, cultural context" was given to students requiring them to complete three different sections: A) student's general background; B) student evaluation, knowledge, awareness, convictions and arch skills to make inquiries and obtain answers. All questions posed are specifically related to Saudi Arabia and some of them are global issues.

Overview

There is a link between the burning of fossil fuels (e.g. petroleum) and extreme weather conditions and environmental degradation (e.g. flash flood, desertification, etc.). The imbalance in the carbon cycle is ca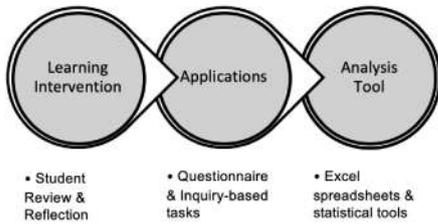using climate crisis (formerly named: climate change). An oil-dependent country such as Saudi Arabia where citizens are facing an awkward and precarious situation because they generally care for sustainability, but the economy thrives on oil-production. The Energy Information Administration's (EIA's) recent data shows that Saudi Arabia ranked second in the top five oil-producing countries contributing 12% of the world's total oil production. According to The World Factbook, the petroleum sector in Saudi Arabia accounts for roughly 42% (i.e. nearly a half) of its gross domestic product (GDP). This investigation primarily examines student evaluation, knowledge, awareness, convictions and suggestions of how to facilitate the country to achieve its sustainable development goals (SDGs) advocated in the nation's Vision 2030.

Research Objectives

To reflect the progress made in sustainability development education since 2017 when the need of pedagogical education for energy literacy in Saudi Arabia was first identified.

To examine student evaluation, knowledge, awareness, convictions and suggestions of how to facilitate the country to achieve its SDGs advocated in Saudi Vision 2030

To serve as a base for a discussion of effective learning and teaching of sustainability specifically evolved in the Saudi context.

Research Activity

135 university students were given an inquiry-based assignment to complete for data collection. To achieve sustainability and restore the earth's health, the three spheres of economics, society and culture are involved. The assignment is written in the format of menu option questions, open-ended questions and a research-based task with guided questions

Learning Intervention → Applications → Analysis Tool

- Student Review & Reflection
- Questionnaire & Inquiry-based tasks
- Excel spreadsheets & statistical tools

Outcomes

- ❖ The country is enjoying strong and stable economy in the respondents' view.
- ❖ Half of the respondents show confidence in their level of sustainability knowledge while one-third of them think they have low level of such knowledge.
- ❖ Their performance clearly shows their understanding of 'green carbon' and 'gray carbon'.
- ❖ Low level of awareness of global climate social movements and events.
- ❖ 87% of the respondents are positive in supporting sustainability by means of fossil carbon reduction and actions alike.
- ❖ Students named more than 12 different ways of environment protection as community members.
- ❖ They named more than 10 different responsibilities they can undertake to ensure a sustainable future for the younger generations.
- ❖ Students recounted more than 10 different values and beliefs from their culture and religion that support environmental protection.
- ❖ They suggested more than 15 ways to reduce fossil carbon emissions, for example, develop negative emission technologies and switch back to manual work instead of using energy-consuming devices. .

Impact

- ❖ The use of social media can be considered for raising awareness of environmental protection, preservation of natural resources and sustainability.
- ❖ Exploration of issues of climate crisis increases students' knowledge of the causes of extreme weather conditions and environmental degradation and motivate them to find immediate solutions.
- ❖ Every educated individual has responsibilities toward his/her community and society and the future generations.
- ❖ High time we put our cultural and religious values and beliefs that support sustainability into actions.
- ❖ Understand and develop negative emission technologies and technologies that enable zero emissions of CO_2 due to fossil fuel combustion.
- ❖ Campaigns to revert to manual work instead of using energy-consuming devices.
- ❖ Events and learning opportunities to be provided to keep the Saudi population abreast of sustainability knowledge and to promote positive behavior toward reaching the SDGs prescribed in the nation's Vision 2030.

Visual Support

VISION 2030
المملكة العربية السعودية
KINGDOM OF SAUDI ARABIA

Cultural, Environmental & General Socio-economic factors
Society
Community
Individuals

Fig. 1 Conceptual map for investigation

Reasons to support sustainability development

7 Raise awareness of anthropogenic impact on the...
6 To conserve natural resources
5 Sustainability Development is in the long run
4 Seek energy alternatives
3 To preserve human health/lives
2 To protect the environment
1 To reduce negative impacts
Others

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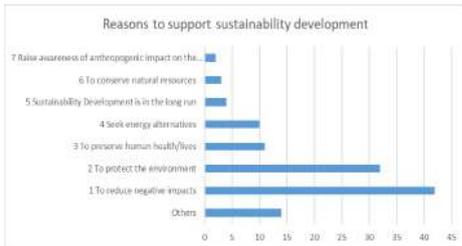
Future Development

- ❖ To investigate the effectiveness of employing Inquiry-based learning (IBL) in ESD in the Saudi context.
- ❖ To explore further methodologies to teach ESD.
- ❖ To investigate Saudi cities' infrastructure and newly constructed buildings that support sustainability and 'green' living visualized by university graduates.

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Let's Focus on Learning:
Students' Rubric-guided Self-assessment Practices

Mohammed S. Alkathiri, Assistant Professor
Deanship of Academic Development

Overview

After each assignment, my students, in the health track, would come to me with many questions about their grades. Their questions suggested a focus on grades, not learning. For example, they would ask why other groups received higher grades. Also, they would express that they feel they "deserve" better grades. Although I am committed to providing my students with timely written feedback, they ask questions about grades, but no questions concerning the feedback. After discussion, I learned that my students did not read my written feedback which I gave on each assignment, did not discuss what they learned or need to learn in order to improve their skills, and grades. I decided to give them the opportunity to grade their own work based on the rubric of that assignment.

Research Aims

The purpose of my change to practice is to experiment and observe the change in students' behaviors concerning feedback, grades and learning. I wondered how the activity of self-assessing their own work would encourage them to carefully read, think about, and evaluate the written feedback I already provided. Also, I wanted to see how students' self-assessment would be in comparison to my assessment of their work.

My dear students

Research Activity

After completing a group project on searching skills, my students were given the opportunity to grade their work following a rubric after I already graded the assignment and gave feedback using the same rubric. The rubric was already shared with students before they began working on the assignment.

For the current action research, I met with students (one group members at a time). The meeting took place at a room that has a u-shaped desk arrangement. The seating arrangement encouraged discussion and made it easier for me to observe students' interactions. I asked students to go through my feedback. Then, I gave them printed copies of the rubric. In some cases, I provided some instructions on how to use the rubric for grading, just to have a common understanding before they get into grading. Students discussed the feedback on the project among themselves as well as with me. Students graded their work following the rubric taking into consideration the written feedback. Finally, students agreed on their final grade.

Outcomes

Intended Outcomes
- Students read, discussed and evaluated the written feedback.
- Students thought about learning: what they did, what could do, what will do, and what they need to be able to do.
- Students self-regulated learning and critically assessed work.
- Students became satisfied with their grades.

Unexpected Outcomes
- Students gave lower scores comparing to the scores I gave.
- Most of students read the written feedback for the first time.

Impact 1/2
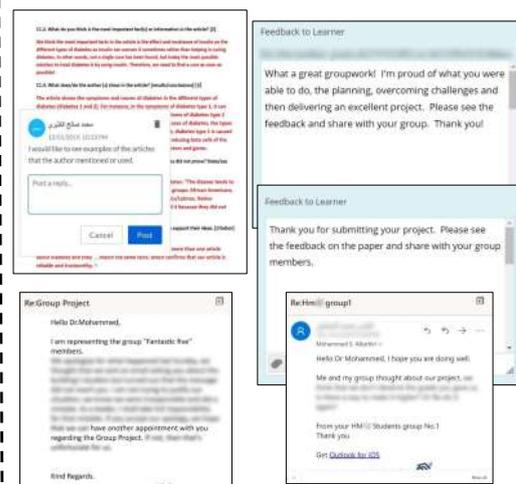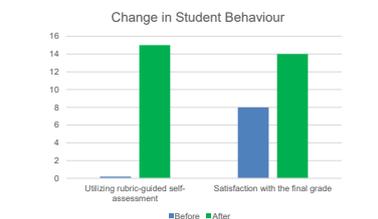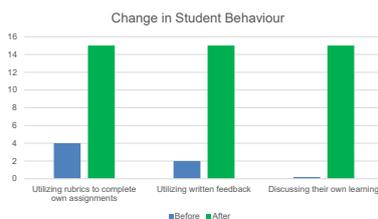
Impact 2/2
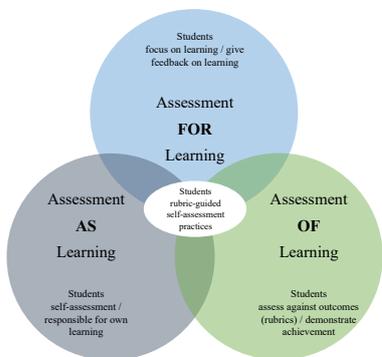
Future Development

Short-Term
I would like to conduct the same action research in another class I teach

Medium-Term
I will collaborate with one or two instructors to develop a well-designed activity that encourages students to practice rubric-guided self-assessment

Long-Term
I would like to share my experience with the academic community. I will write a manuscript of the action research to submit for publication

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Enhancing Students' Engagement: Using a Jigsaw-based Cooperative Learning Approach

Dr. Afnan Almulla, Head of Special Education Department, College of Science and Humanities

Abstract

Jigsaw based cooperative learning approach has been found to be one of the effective pedagogical approaches that increase students' engagement in the classroom (Lom, 2012; Liao, Griswold and porter, 2018). The purpose of this action research is to investigate students' perceptions of the effectiveness of using Jigsaw learning activities to enhance their engagement in the classroom. The study was conducted on one MA course at College of Science and Humanities, IAU. To achieve the aims of this study, questionnaire was used as to collect data from the students. The results show that Jigsaw activities are perceived to be effective in enhancing students' engagement in the classroom by encouraging them to share ideas, express opinions and answer each other's questions. However, more feedback in needed from the lecturer.

Overview

Students' engagement is considered to be one of the main factors that influence learning experiences among students. From my work with postgraduate students, I have noticed the difficulties that lecturers face when attempting to deliver highly intensive learning contents and maintain students' engagement. Post graduate students need to have more opportunities to interact and learn from their peers. According to Popenici (2013), universities are playing a vital role in integrating teaching pedagogies that foster students' active participation and involvement in various learning opportunities with their peers. IAU is increasingly aiming at equipping its staff with teaching strategies and approaches that encourage students' interactions and active learning, such as cooperative learning approach. Therefore, Jigsaw was introduced to a sample of postgraduate students in Special Education Department

Research Aim

The aim of this research is to investigate students' perceptions of the effectiveness of using Jigsaw based cooperative learning approach on enhancing their engagement in the classroom.

Research Activities

- Pre-study observations on the level of students' engagement in the classroom.

- Research on cooperative learning approaches with a focus on Jigsaw activities and students' engagement.

- Pre-intervention questionnaire to capture students' perspectives about their engagement level since they entered the programme.

- Implementing Jigsaw activities in one of the MA courses.

- Post-intervention questionnaire to capture students' perspectives about their engagement after their participation in Jigsaw activities and classroom observations.

- Data analysis and summarizing the main outcomes.

Outcomes

- The study shows that six of the nine students asserted that Jigsaw activities usually provided them with sufficient opportunities to engage in the classroom. Only three students said that they were sometimes engaged during Jigsaw activities.

- All students agreed that Jigsaw activities allowed them to discover different opinions around the topic, provided them with the space to think with their colleagues in the classroom and allowed them to criticizes their colleagues' answers.

- Almost all students indicated that that Jigsaw activities foster cooperation during the classroom, helped them to discuss their colleagues' ideas and answers their questions.

Impact

- Discussing and exchanging ideas:

"The strategy (Jigsaw) created an atmosphere of interactions, discussion and exchanging perspectives among students…. It created a high level of academic engagement not only among the group members but also between all the groups…. Exchanging information helps in updating each other's information around a specific topic " (S1).

"It Created a spirit of enthusiasm and competition among students and encouraged critical and analytical thinking about the ideas and information shared among students" (S5).

- Building relationships in the classroom:

"It offered an opportunity for students to cooperate with others for the first time which in turn created acquaintance and affinity among students" (S2).

Future Development

Establishing a platform in which students can provide their opinions (about teaching and learning) just after each lectures. — Long-Term Development

Implementing different teaching strategies that foster students' engagement as well as facilitate their learning. — Medium-Term Development

Providing more feedback from the lecture and engaging with students' discussions. — Short-Term Development

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Popenici, S. (2013). Towards a new vision for university governance, pedagogies and student engagement. In E. Dunne, & D. Owen (Eds.), The student engagement handbook: Practice in higher education, (1st ed., pp. 23–42). Bingley: Emerald.

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Jigsaw activities provide the student with sufficient oppourtunities to engage in the classroom | Jigsaw activities help the student to cooperate with her colleagues in searching for the information | Jigsaw activities allow the student to feel comfortable in expressing her opinion in the classroom | Jigsaw activities allow the student to discover her colleagues' opinions about the topic

Usually / Sometime / Sometime / Sometime

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Reflection in Teaching Fundamental of Information Systems

Mohammed Alqahtani, Assistant Professor
College of Computer Science and IT

Abstract

Teaching is very important in academia to help the student to acquire knowledge and competency. This research aimed to investigate the productivity and effective teaching methods based on experience with students and co-instructor for achieving active learning in the fundamental of information systems course.

In this study, the aim is to analyse the impact of different teaching methods that helps the students to challenge their preconceptions, and motivates them to learn, by putting them in a situation in which they come to see themselves as the authors of the answers and also the use of the technology and group work with diverse members fostering to achieve the effectiveness and productivity of individual and group.

Overview

All students are usually different, and yet there are many commonalties from student to student. Keeping this point in view, multiple ways of teaching were adopted in the course. Commence with traditional lecturing approach, PowerPoint slides were to deliver lecture. Moreover, during lecture dialogic teaching was also adopted, asking questions to students and giving them chance to ask questions; therefore, creating environment of discussion. Sometimes, students were divided into groups to discuss and answer questions. At the end of the lecture, technology-based technique was used where students were given questions to answer using Kahoot. Throughout the course, case study-based approach was also followed. Based on the topic, case studies were given to students which relate the real-life example with the concept taught.

Research Aims

Enhancing student learning by use of dialogic based approach such as discussions to learn from each other.

Use of technology based methods to give an interactive learning environment to the students.

Improving students understanding of multiple topics by relating them to real life examples using case study based approach.

Research Activity

Group Discussion/presentation
Case Study
Ungraded Assessments

Group Discussion Students were divided into groups to take part in discussion and to carry out research on multiple topics.
- Blackboard discussion forums and in-class discussions were used

Case Study Multiple case studies were given to the students and were asked to discuss the case study in groups and answer the given questions.
- Home work and in class discussion were used.

Ungraded Assessment Student's understanding of topic was assessed by taking a small quiz on Kahoot at the end of each lecturing session.
- Kahoot was used for small quiz.

Outcomes

Several outcomes have been achieved based on research activities.

Students active part in discussion

Students active participation in end of session assessments

As result of activities, student were motivated and take active part in discussion

Students took special interest in solving questions at the end of the session which helped them not only to prepare for future exams but also in learning the topic well.

Impact

One of the students quoted "we really enjoy the presentation and knowledge sharing session it helped us to gain knowledge from instructor as well as from each other".

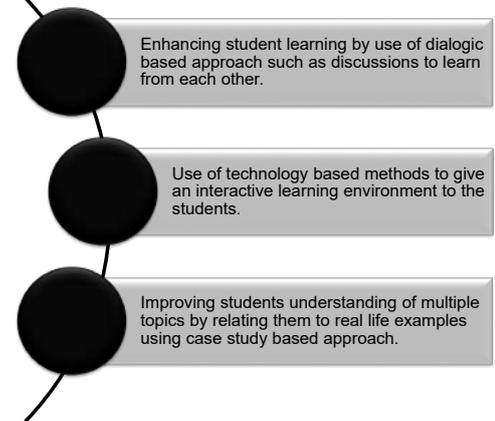One of the co instructors was of the opinion that students were less motivated in the beginning due to theoretical content, but multiple teaching methods helped them in learning and ultimately they enjoyed the course.

Incorporating case studies throughout the course had enhanced students' performance in CLOs

Group structuring is a challenge as students are from different backgrounds and have different learning abilities.

Course Learning Outcomes
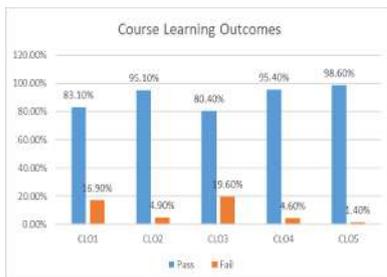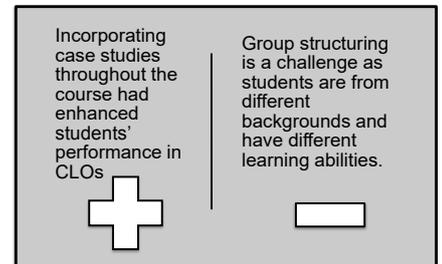
CLO Achievement Level		
CLOs	Pass	Fail
CLO1	83.10%	16.90%
CLO2	95.10%	4.90%
CLO3	80.40%	19.60%
CLO4	95.40%	4.60%
CLO5	98.60%	1.40%

Future Development

Long-Term Development Incorporating a case study-based approach throughout the course to introduce students to real life examples of Information System usage and roles in organizations and encourage them to participate in in-class discussions on the topic.

Medium-Term Development Motivation level can be increased by involving them in discussion and presentation and also the usage of technology such as Kahoot .

Short-Term Development Ensure the group structure must be heterogeneous with members having diverse abilities led by true leader to achieve group cohesion

References

- N. Yamamoto, "New Functions for an Active Learning System to Improve Students Self-Learning and Concentration," *2015 18th International Conference on Network-Based Information Systems*, Taipei, 2015, pp. 573-576. doi: 10.1109/NBiS.2015.84

- http://cet.usc.edu/resources/teaching/

- https://vle.iau.edu.sa/webapps/portal/execute/tabs/tabAction?tab_tab_group_id=_220_1 (core competency program slides)

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Activating In-class Peer Feedback for Graduate-level Students

Sama'a AlMubarak, Assistant Professor
College of Public Health, Imam Abdulrahman Bin Faisal University

Abstract

The aim of the research was to encourage students to actively provide constructive feedback to their peers. By answering questions on the feedback sheet, each student was provided with feedback from all their peers. Students communicated that they benefited from the feedback by addressing it in other settings and considered it in revising their final research submission.

Overview

Peer feedback can be identified as students providing detailed comments to their peers. Giving and receiving peer feedback improves students learning, increases their involvement and improves the quality of their work. However, peer feedback, if done in-class, can be time-consuming and introduce negative externalities (Crowe, Silva & Ceresola, 2015; Liu & Carless, 2006; Li, Liu & Steckelberg, 2010). Throughout the course, I have noticed that students do not provide feedback to their peers. Whenever they are presenting their work, students were reluctant to provide feedback to each other. Thus, I identified a need to encourage and activate peer feedback.

Research Aims

1. Provide constructive feedback to peers
2. Participate actively in the feedback process

Research Activity

- **Course:** Master's course
- **No. of students**: seven
- **Assessment:** Final research *presentation*

01 Each student takes six (no.) feedback sheets

02 Students present their work

03 Students write feedback to the presenter

04 The instructor collects feedback sheets, after each presentation, and hands them to the presenter
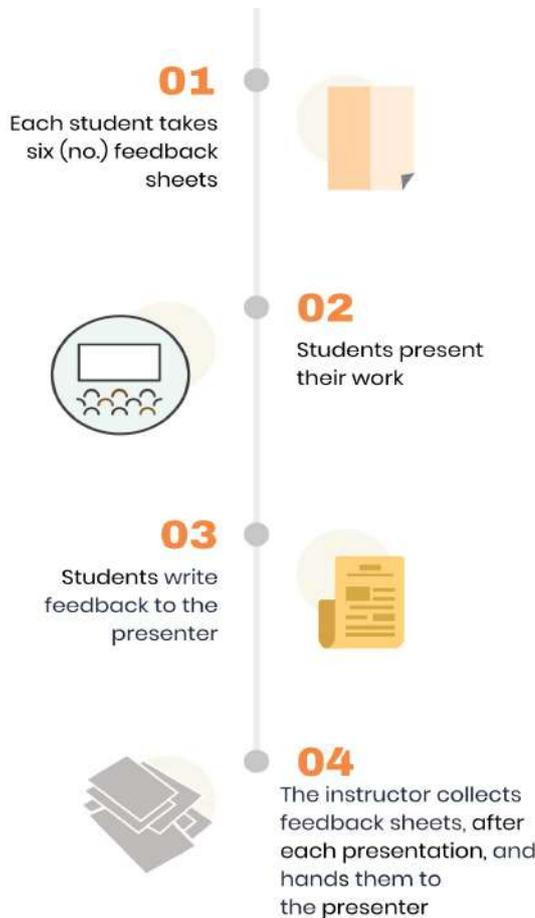
Presenter's Name:

Areas of strength (positive):

Area/s for further improvement:

Peer Feedback Sheet

Outcomes

- **Observations** *During*
  - Students were "actively engaged" during their peers' presentations

- **Focus Group** *After*
  - Students shared their feedback and comments with each other
  - Students took feedback into consideration in revising their final papers prior to submission

Impact

"the feedback I received reflected the different backgrounds of my peers"

"some of the feedback that I got was on my presentation skills, I changed some of it based on the feedback in other courses"

What's Next?

Online peer feedback

References

Crowe, J. A., Silva, T., & Ceresola, R. (2015). The effect of peer review on student learning outcomes in a research methods course. *Teaching Sociology*, *43*(3), 201–213.

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Intervention for Attention!

Dr.Mariam Elhussein
Assistant Professor
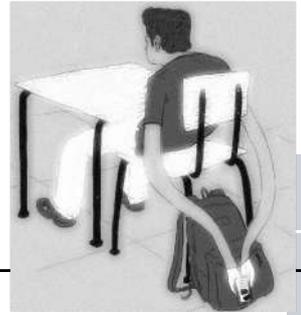
Abstract

The instructor reported having trouble with students getting distracted by mobiles during lectures conducted later in the afternoon. To resolve this problem, mobile activity was designed to incorporate students into group discussions about an important concept that was taught. The instructor applied Poll Everywhere mobile app in assessing students' progress before, during and after the activity. The app was also used to encourage student participation in group discussions. The outcome of the intervention was successful in increasing student engagement, reducing mobile playing and provided instant feedback about their progress. Further ways of attracting students' attention are to be researched and applied.

Overview

It has been a struggle to have students attention in lectures that are not practical in nature. The problem is extenuated when these lectures are scheduled to be run in later hours of the day mainly after 2:00 PM. It is a normal sight to see students reaching for their mobiles and try to use them while the lecture is running.

Research Aims

1. Increase students' interaction
- Have students be more engaged instead of sitting idle in class.

2. Decrease Mobile phone distraction
- Minimize the distraction of mobile phones by using them within classroom for learning.

3. Apply assessment for learning methods
- Give students an opportunity to evaluate their level of learning without worrying about their grades.

Research Activity

The class is setup to recognize "research structure". This is a concept that has been taught in the previous lecture.
- Preassessment is conducted to gather how did the students feel about their learning.
- Students are divided into **six** groups. Each group is given an abstract of a research paper printed in A3 paper.
- Some questions are prepared for the groups to look for answers to.
- Teams evaluated each others' answers.
- Post-assessment of learning was performed.

Learning Invention	• Group activity
Applications	• Poll Everywhere for evaluation
Analysis Tool	• Poll Everywhere

Comparing groups

| | | 80 | | | 85 | | | 93 |
| Group1 | | | Group2 | | | Group3 | | |

■ before ■ after

Table 1 – Comparing level of understanding before and after the activity in the three groups

	before	after
Group1	75	80
Group2	77	85
Group3	80	93

Outcomes

The activity was evaluated by a peer who was experiencing the same issues with the same students. The peer noted that students were more engaged and excited about the activity. Less frequent bathroom visits or excuses to leave the class were one of the unintended outcomes.
The students were very engaged during the activity. It was noticed that one on one discussions were conducted. Students were explaining their understanding for each other. They used their mobile phones to research the answers further. Outcomes can be summarized in the following:
1- A very boring concept which usually drives students to play with their phones was converted into highly engaging activity through using **Poll Everywhere**.
2- Student understanding of the concept was evaluated pre and post the activity. Their feedback showed that they believe that they have more demand on the concept presented.

Future Development

Short-Term
Identify more points to repeat the same activity.

Medium-Term
Look for other ways to engage students during class.

Long-Term
Experiment with other forms of student-centered learning.

Impact

❶ Students were very excited during and after the activity. This is a wordcloud that they produced as feedback after the activity.
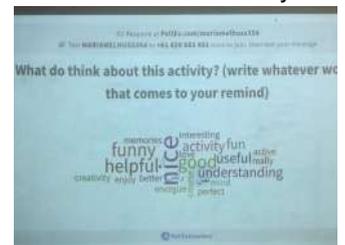
❷ It was a good reminder that students are willing to work if they are encouraged to do so.

| Highly engaging | Was hard to give individual feedback. |

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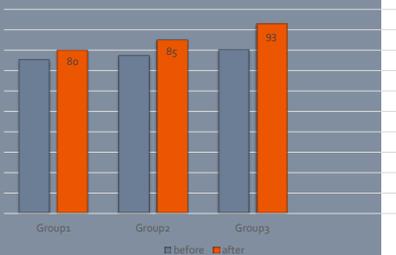
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Supporting Students Self-Centered Learning:
Tape Recording and Post-hearing Feedback, Was it Effective?

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Imam Abdulrahman bin Faisal University

Abstract

The purpose of this study is to investigate the effectiveness of voice recording activities to improve undergraduate language students' oral fluency in English as a foreign language. The data collected for this study from undergraduate Level five **Arts of Speech** Course students in semester 1,2019 participated Online questionnaire, and data collected and analysed according to the attitudes and effectiveness of using voice recording activities in the classroom. The study finds out that voice recording activities are effective to help English language learners to improve oral fluency. English language teachers might consider devoting additional attention to English oral fluency teaching by using new technology like voice recording to help learners improve their speaking skills especially for learners who are shy and lack confidence. It will help learners to improve their foreign language leaning in general.

Overview

In the **Arts of Speech** course students are supposed to learn the art of debating and participating in a group/seminar discussion. This requires oral fluency and the ability to interrupt, express opinion, agree/disagree in an academic professional manner. Most students cannot identify their mistakes. Also, they tend to be sensitive to the teacher's assessment or comments on their oral fluency. Therefore, an intervention was needed. As a new teaching strategy, I decided to tape-record their group conversations and then students would listen and reflect. They would self-evaluate and discuss within the group their won mistakes and others. I found out that they were more accepting of self-reflection and of their colleagues comments. This lead to an improvement in their debating skills. It also gave students more confidence.

Research Aims

1. Improve learning strategies among students of level 5

2. Students can identify their oral fluency mistakes and therefore self-reflect

3. Teachers improve their assessment/teaching strategies concerning speaking skill

Research Activity

Learning Invention
- Students identify their oral fluency/art of speech mistakes by self-reflecting.

Applications
- Tape-record debates/discussions of a certain topic chosen by students. Then, post-hearing session and self-evaluation.

Analysis Tool
- Online questionnaire.
- results in the final oral exam.

Outcomes

Voice recording activities were fun, motivating and useful to help avoid the gap between active students and passive students, helpful to build self-esteem and confidence among students. The learning process becomes more student-centered rather than teacher-centered.

The students benefited a lot from self-evaluation. They avoided repeating the same mistakes in their final oral exam. They also gained self-confidence and spoke more fluently.

The result shows that they became more confident and out spoken. The results of the final oral exam are better than the midterms. Also, the survey shows their satisfaction of this strategy. They started using this technique at home and in other courses.

I forwarded this teaching strategy to the instructors of the course in our regular meetings. Also, I listed it in the course report as a method that should be used in this course and other speaking courses.

Impact

- When students were asked: write a comment about how you evaluated your speaking skills? and do you think it is a good strategy for improving your oral fluency?
  Answers are:

A. my speaking skills changed completely , I used to get nervous before presenting or talking in front of a group of people , I evaluated my speaking skills by recording myself before and during my speeches / presentations , So that i can see my weaknesses and work on them.

B. It's a great idea.

C. I believe it is a helpful strategy, because it gives the chance to all the group to participate. For me, I noticed when I am speaking to a group of people my tone gets monotone or be too aggressive.

D. It is very important to practice every day if we want to be fluent.

- When students were asked: write a comment about how you felt when you heard your voice? were your mistakes more clear to you?
- Answers are:
- A. I felt uncomfortable at first But then i started noticing my good and weak points and started listing them down to work on them and improve them no matter how good or weak it was.
- B. I noticed my mistakes clearly.
- C. Yes, it was very clear. Obviously I was very focused on my voice and the I was talking, I was able to point out my mistakes clearly.
- D. I hate to listen to my voice but when I heard it I realized that I need more practice

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Huang, S. C. (2008). Raising Learner-Initiated Attention to the Formal Aspects of Their Oral Production through Transcription and Stimulated Reflection. IRAL-International Review of Applied Linguistics in Language Teaching, 46(4), 375-392.

Do you think you benefited from hearing your conversations?

Answered: 8   Skipped: 0
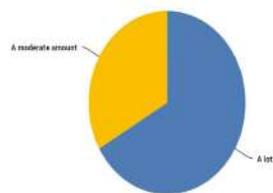
ANSWER CHOICES	RESPONSES
A great deal	0.00%
A lot	66.67%
A moderate amount	33.33%
A little	0.00%
None at all	0.00%

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Case Study in Managerial Skills

Mahmoud M. Alayis,
College of Applied Studies and Community Service

Abstract

The case study is sometimes referred to as Case Learning and Case Study approach. It is an active and student-centric learning method. It provides a mechanism for learning concepts, skills, tools, and techniques in presence of a context where the instructor and students are engaged in a meaningful manner. It is a teaching technique by means of real scenarios as a tool for delivering a particular subject. The real scenarios are in the form of case studies or rather teaching cases that are usually developed based on real events or sometimes even fabricated. Case study has been an effective pedagogy tool in Social Science education such as Law and Business, Its potential in Applied Science education such as Software engineering, however, has yet to be fully explored.

Overview

The case study is a teaching technique that uses real cases as a tool for delivering a particular subject. Managerial Skills are a discipline that concerns the principles, methods, and tools for developing and improving skills. therefore the education of managerial skills tends to be too theoretical. To impose realism where the students can be exposed to real scenarios and learn to apply those theories through discovery, the case study is seen as necessary for Managerial skills education.

Research Aims

- Students discover the knowledge of the subject themselves through self-preparation and group discussion
- Get real experience and situations that happen in the real world
- It cultivates students' practical activity by arousing students' interest and attracting them to participate

Research Activity

- students engage in reading, analyze cases and execute discussions with peers and instructors.
- The cases are either developed or retrieved from a case-bank.
- A developed case study can be based on real-life experience or can be a hypothetical one.
- A good case should focus on one issue or problem, has a clear problem statement and relates to the pedagogical aims of the programme.
- Case study has not straightforward solutions
- public cases are available, some instructors prefer developing their own cases.

Outcomes

- Case study is more effective than traditional lecture-based approach.
- The case study method promotes knowledge acquisition and understanding.
- The case study method encourages cooperation and the exchange of ideas / opinions.
- The case study method enhances the relationship between the instructor and the student.
- Students have reasonable working experience from case study.

Main content of Outcomes

Usefulness
Written Assessments
Group Preparation

- ☐ Related to reality
- ☐ Promotes knowledge acquisition and understanding
- ☐ Improves interpersonal skills
- ☐ Encourages cooperation
- ☐ Easy and short
- ☐ Reasonable working experience
- ☐ Provide notes and guidance for discussion

Impact

- Case study promotes student-centered learning.
- The teaching cases come together with teaching notes that act as a guidance to instructors on how to deliver the case.
- enables students to relate their experiences to the learning process and improve the learning through problem solving activities
- It provides a mechanism for learning concepts, skills, tools and techniques in presence of a context where the instructor and students are engaged in a meaningful manner.
- Solutions should come from students' deep analysis, discussion and understanding.
- Case study will not only make students' learning proactive but also enhance their analytical and problem solving skills.

Visual Support

Series 1

(Categories: Exposes to realness; ...tes knowledge acquisition and...; Improves interpersonal skills; Encourages collaboration and exchange...; Enhances relationships among peers...; Cases are short and simple; Cases involve thinking/reflecting instead...; Cases have sufficient...; Students possess reasonable working...; Instructors provide feedback and guide...; Environment is conducive (e.g. fun and...)

Future Development

Long-Term Development: Create a framework that can guide educators to use the case study in teaching social sciences.

Medium-Term Development: Professors cooperation to create a bank case study project

Short-Term Development: the use of Case Study in Applied Science.

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Teaching By Story: The Fish Market

Abdallah Zahry Amin,
College of Applied Studies and Community Service

Abstract

People love, and listen to the story with their ears, minds and hearts, also there is a well-known technique in management science called the management by stories, for this I decided to apply the method of teaching by story in (and out) the classroom.

The story was for a distinguished manager who provides exceptional performance in a service institution, and because he provides an exceptional performance that was assigned a difficult work. Work was the management of A change in a department that suffers a lot. The suffering, of course, reaches the customers, and when the suffering reaches the customers, this means that the entire organization is blown away by the wind. Where will he start? And what will he do? Will he succeed or fail? The start was unexpected. The beginning was in the fish market. the fish market that he entered by chance surprised him and inspired. Our crisis is in the way of thinking, not in the way of working. This was the great goal of this story or teaching method.

Overview

Just as there is management by stories, there is also teaching by stories. The teaching by stories affects a lot in developing students' responses and developing their achievement rate, and it gives a different teaching environment in the classroom that breaks the bored and routine.

Research Aims

- Using a new teaching method
- Developing students' interaction and developing their concentration
- Providing basic concepts in management in general and in marketing services in particular through story.
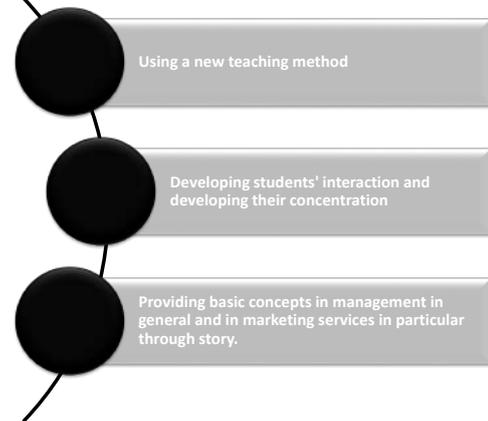
Research Activity

1. Preparing for the story's presentation according to the criteria used in its presentation (defining its goals, designing its main elements, from explaining the story's environment, developing the node, and solving it, free of many details, sequences and presentation in an attractive way).
2. PowerPoint design includes the main points of the story
3. Preparing a video film related to the story
4. Show the story
5. Learn the reactions to the story and emphasize the lessons learned

Outcomes

1. Follow the reactions (body language and comments after presenting the story) to the story.
2. Recipients liked the story and were impressed by its presentation.
3. Recipients connect the story to reality by developing comparisons.
4. Determine the benefits associated with the story in the area of management and service marketing.

Impact

Some of the recipient's comments:

- "A very interesting story that caught everyone's attention and everyone else was listening"
- "Linked to reality"
- "We learned great ideas in services marketing"
- "A great way to change and manage change"
- "Thinking differently will lead to different results"

.
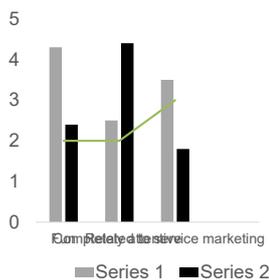
Future Development

insert your short-term, medium-term and long-term future work (delete it)

- Long-Term Development: support students in providing stories.
- Medium-Term Development: Find more practical real-life stories in local organizations
- Short-Term Development: Extended use of story method

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Series 1   Series 2

Completely attentive   Company the service   Related to the service marketing

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Imam Abdulrahman Bin Faisal University

جامعة الإمام عبدالرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY
عمـــادة تطويـر التعليم الجامعـــي
Deanship of Academic Development

Project Based Learning: An effective strategy to teaching communication skills

Dr Mohamed Redha Bougherira, Assistant Professor Deanship of Preparatory Year and Supporting Studies

Abstract

The aim of this action research is to **determine how effective the use of collaborative Project Based Learning (PjBL)- with extensive use of technology- in developing students' communication skills in general, and their presentation skills in particular. It also assesses the pedagogical benefits of this approach to be potentially used as a medium of teaching to deliver COMSKL course (LRSK 142)** in the Deanship of Preparatory Year and Supporting Studies (DPYSS). This is an on-going action which was implemented at the start of the second semester of this academic year. Three groups (classes) from the health track (potential medical students) totalling 87 students are the participants. The action involves five stages: Identification of the problem (pre-identified), planning the intervention (model), implementation (actual stage), observation (next stage), evaluation and sharing findings (next stage). The researcher assumption is that the expected findings will corroborate previous researcher's findings that advocate the pedagogical merits of PjBL strategy in developing students COMSKL.

Overview

Most employers, educationalist and students value the benefits and the importance COMSKL. It isn't surprising that COMSKL courses are part of the curricula in many universities worldwide. In our university, COMSKL course is taught for all first-year students at the DPYSS. The same takes place when students join their specialities. Students constantly perform well when assessed on their COMSKL, and value the content of the course, as evidenced in form successive courses surveys. However, feedback on students' COMSKL from some **the university colleges often recommend to improve the content of the presentation unit of the course. They point to the difficulties' students find in presenting work/projects** to their peers and instructors. Considering that the course content covers enough skills at this level in all of its units, the action researcher rather favours solving the problem through a teaching strategy which in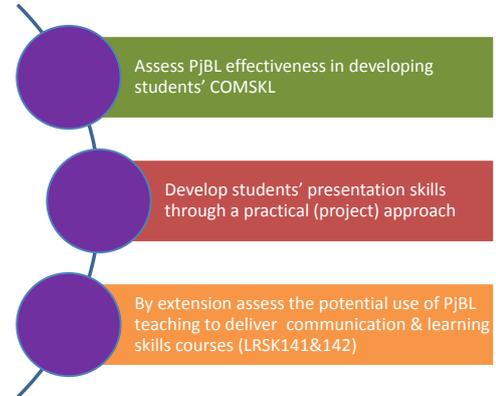creases students' interaction and provide more opportunities for practicing presentation skills. Therefore, the choice to test PjBL fit well within the objectives of the research because of its proven pedagogical benefits to develop the knowledge and skills of students.

Research Aims

- Assess PjBL effectiveness in developing students' COMSKL
- Develop students' presentation skills through a practical (project) approach
- By extension assess the potential use of PjBL teaching to deliver communication & learning skills courses (LRSK141&142)

Strategy to Test Action Research

Main activity: Present a Project on Interaction with and Solving Community Issues.

Pre- Project Phase:
- Discussion of project objectives learning outcomes
- Learning activities:
  ➢ Principles of communication skills (Blended)
  ➢ Effective communication skills (Blended)

PjBL implementation phase: Group Work
1- Identify your community (Who)
2- Identify the problem (What)
3- Group approval
4- Research the problem
5- Find a solution (how- model)
6- Design a plan (for implementation)
7- Present your action project (peers)
8- Engage your community (optional)

Assessment:
- Peer assessment of presentations (criterion based)

Observation: Each step is based on scaffolding learning:
- Short presentation to peers until the final presentation
- Feedback (peers)

Expected Outcomes

Students
- Cognitive, problem solving and critical thinking development
- Interpersonal skills: ability to work well with others and build leadership and communication skills
- Develop presentation skills
- Improve social awareness, responsibility and citizenship skills
- Initiate students to future involvement in community service

Faculty & Course
- Improve the quality of teaching
- Improve students' learning satisfaction

Expected Impact

Students:
- Better opportunities to apply/ practice skills
- Increases active an independent learning
- Increases motivations (purposeful learning)
- Increases learning engagement
- Better retention of information

Faculty & course:
- Less direct/traditional teaching
- Faculty development on PjBL and PBL
- Faculty collaboration (sharing ideas and good practice)

Feedback & Visual

Intended Development

- Expand PjBL to the teaching of Learning Skills (LRSK141) — Long-Term Development
- Expand PjBL to the teaching COMSKL (LRSK142) — Medium-Term Development
- Expand PjBL to the teaching of COMSKL in the health track — Short-Term Development
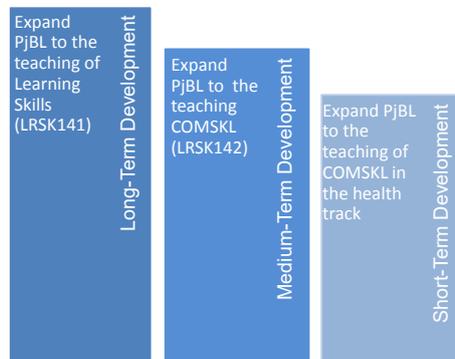
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Fellowship Program in Learning and Teaching
Deanship of Academic Development
Imam Abdulrahman Bin Faisal University

Emotional Intelligence Among Psychiatric and Mental Health Nursing Students and General Nursing Students

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College of Nursing

Abstract

Emotional intelligence has been linked to individual well-being and has a positive outcome when providing patient care. The aim of this study is to assess the level of emotional intelligence (EI) among psychiatric and mental health nursing students (3rd year) and general nursing students (2nd year). Data were collected from all nursing students who had completed the 2nd and 3rd year of schooling through the use of the Schutte Self-Report Emotional Intelligence Test. The results of this study showed that 3rd year nursing students reported a higher level of EI than general nursing students. In addition, EI was correlated with a high level of clinical performance. Several recommendations were suggested in order to improve the EI of nursing students and their clinical performance in order to provide a high quality of nursing care.

Overview

Many studies have proven that emotional intelligence (EI) is a significant and desirable trait among nursing healthcare providers as it contributes to initiating suitable relationships with others. [1-2]

Researchers studied the relationships between EI and coping patterns among students enrolled in healthcare college in a number of articles.

Research Aims

The aim of this study is to assess EI among psychiatric and mental health nursing students and general nursing students at one university in Saudi Arabia. The research questions are as follows:

1.
- What is the level of EI among nursing students?

2.
- Are there differences between 2nd and 3rd year nursing students in terms of EI?

3.
- What is the relationship between EI level and clinical performance among nursing students?

Research Activity

This study employed a descriptive and comparative study design. Ethical approval was sought from the Institutional Review Board at the Imam Abdulrahman Bin Faisal University.

Participants
- 224 nursing students who had either completed only their 2nd year of schooling or had completed their 2nd and 3rd years of schooling.

Research Tool
- Sociodemographic data questionnaire
- Schutte Self-Report Emotional Intelligence Test. [6]

Data Analysis
- SPSS software version 23 (descriptive statistics, T-test and ANOVA)

Level of Emotional Intelligence among Nursing Students

- High 47.10%
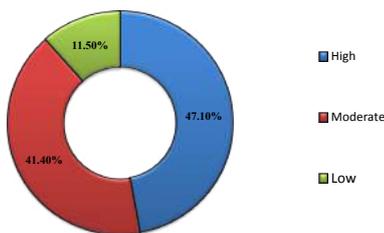- Moderate 41.40%
- Low 11.50%

Table 2: Correlation between level of Emotional Intelligence and Level of Study

Variables/Level of EI (±)		N	Mean ± SD	F	t	df	P.Value (Sig)
Level of Study	Fundamental of Nursing(2nd year)	115	1.97± .591	7.78	7.81	242	.006*
	Psychiatric and Mental Health Nursing Course	129	1.36 ± .622		7.83	241.01	

ANOVA Analysis of the Correlation between the Level of Emotional Intelligence and Clinical Performance

Variables/Level of EI (±)		N	Mean ± SD	F	df	P.Value (Sig)
Clinical Performance	Excellent (100-90)	134	.35 ± .03	707.02	2	.000*
	Very good (89-80)	82	2.0 ± .00		241	
	Good (79-70)	28	3.0 ± .00			

*Significant at P-value ≤ 0.05

Outcomes

1. The majority of the students reported a high level of EI. (Figure 1) This result is supported by Helenpuii (2018).7

2. Students who completed their 3rd year reported a higher level of EI than those who had complete their 2nd year but not their 3rd year of schooling. (Table 1).

3. A high level of clinical performance was directly related to a high level of EI in the students. (Table 2) This result is in alignment with previous studiest.8-9

Future Development

Short-Term

Engage nursing students in learning communication and relationship skills as part of fundamental nursing courses.

Medium-Term

Offer educational and training program that teach communication and relationship skills.

Long-Term

Review and modify nursing curriculums based on the research results.

Impact

A high level of EI among psychiatric and mental health nursing students emphasized the importance of teaching communication and relationship skills starting from their 2nd year of schooling, which in turn helped these students manage stress and provide a better level of performance during clinical exams, which therefore resulted in a high level of clinical performance.

Positive:
Generally, the majority of nursing students reported a high level of EI.

Negative:
Largely, general nursing students may lack basic communication and relationship skills that are taught to psychiatric and mental health nursing students.

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Using Blackboard Collaborate Ultra – a digital Web-based education tool – to Support Students Learning

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Abstract

Student support is one of the key factors to improve students' learning experience and their overall success. Students always suffer from anxiety before exams and need more support, especially in that period. Online collaboration becomes an efficient way to link teaching staff with their students in view of supporting students to improve their learning experience. Blackboard Collaborate Ultra (BCU), is one of the tools that is used to create online sessions, which are accessible through a Web browser with no additional software requirement. This action research has been applied to investigate the impact of online sessions before the exam to improve students learning experience using BCU as a digital Web conference tool. This study is applied in Computer Department at the Deanship of Preparatory Year and Supporting Studies at Imam Abdulrahman Bin Faisal University. The results reveals that online sessions using BCU made a significant improvement in overall students' learning experience and should be considered for improving the quality of teaching and learning beyond the conventional classrooms.

Keywords: Online sessions, Blackboard Collaborate Ultra, E-Learning, Teaching and Learning.

Research Activity

This study is developed to explore the possible effects of online sessions before exams using BCU technology in students learning experience. In particular, the research question driving the study is: *How online sessions using BCU environment will enhance the learning experience and improve students' achievements?*

All instructors within the Computer Department at the Deanship of Preparatory Year and Supporting Studies created two online sessions for their groups during the last 5 days before exams. More than 3000 students were invited to participate in these sessions.

Overview

Supporting students during examination period is very important for their success especially preparatory year students. Extra lectures is one of the main strategies that used to support students before exams. The problem is that students have high teaching load since they have 32 to 36 contact hours per week. To solve this problem we created extra online sessions, so students can attend classes on the time suitable for them and in a comfortable environment. Blackboard Collaborate Ultra (BCU) is a virtual classroom tool in which students and teachers interact synchronously with each other in an online learning environment [1][2]. The teacher leading the session can stream live video content from a webcam, and share their screen with participants (e.g., for software training).

Students can interact with the teacher and with each other in various ways. For example, they can raise their hands (virtually) using the available emojis if they want to ask a question, share information about their current state of mind (I agree/disagree, I am happy /sad /surprised /confused, can you go faster/slower) and use the instant message functionality to ask questions.

Figure 1: Online learning environment within Blackboard Collaborate Ultra.

Educational advantages that arise when supplementing a course with BCU

- **Enhancing student-to-student and faculty-to-student communication**

Web-based education tools provide many ways to increase communication between class members and faculty, including discussion boards and chats. Researchers have found that adding these interactive tools to increases student motivation and participation in class discussions and projects [3][5].

- **Students share perspectives**

Online forums, like BCU, provide public areas to post information. Each student can view another student's answers and learn through exposure to different perspectives. This benefits students because they can combine new opinions with their own and develop a solid foundation for learning [3][4].

- **Enabling student-centered teaching approaches.**

Every student has a unique learning style. Some students are visual learners, some learn better when they "learn by doing" [3][4]. Therefore, learning style has an affect on the students results and achievements.

Results and discussion

The online sessions were applied for Health and Science tracks' students. These sessions were to review the contents of Computer Skills course. The students' results are shown below in figures 2 and 3.

Where the :

HM refers to male students in Health track.
HF refers to female students in Health track.
SM refers to male students in Science track.
SF refers to female students in Science track

Table 1: Health Track Results					
	HM		HF		HM + HF	
	Success	Failure	Success	Failure	Success	Failure
2018-2019 Without online sessions	97%	3%	92%	8%	98.50%	1.50%
2019-2020 With online sessions	98%	2%	100%	0%	99%	1%

Figure 2: Impact on Computer Skills course (Health Track)

Success rate for Health Track

Table 2: Science Track Results							
	SM		SF		QCC		SM + SF + QCC	
	Success	Failure	Success	Failure	Success	Failure	Success	Failure
2018-2019 Without online sessions	72.71%	7.29%	99.28%	0.72%	72.78%	27.22%	93.00%	7.00%
2019-2020 With online sessions	94.00%	6.00%	99.70%	0.30%	92.00%	8.00%	95.00%	5.00%

Figure 3: Impact on Computer skills course (Science Track)

Success rate for Science Track
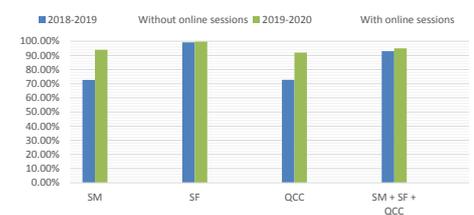
This study shows the effect of online sessions in examination period with support of BCU in improving student achievements. It is clear from the results that there is an increase in the success rates after using the proposed technique. In this study, student support process was facilitated through online sessions, which established a vehicle for socially constructed learning at a distance.

Conclusion

Supporting students during examination period is very effective in improving student's achievement. Students and faculty both benefitted from the integration of BCU in learning processes. Students have a customized approach to knowledge acquisition that suits their learning styles and busy schedules. The advantages of an online session (education) make a significant impact in our department for the first semester, and, as technology evolves, promise to deliver even greater benefits in the future.

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Gamified Classroom Activities

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Abstract

The current research project aimed at proposing an instructional design model to help teachers create active, engaging and fun learning situations using digital gamified classroom activities. The gamification approach has been adopted as it has a great impact on improving students' active participation and satisfaction.

To promote a deep learning approach, the Constructive Alignment model has been introduced to help faculty members keep the ILO's, Teaching/Learning Activities, and Assessment Tasks coherent. In addition, digital tools such as "Kahoot" have been introduced to faculty members to help them manage large classes in an efficient way.

The preliminary findings of the first round revealed a great impact of the proposed approach in promoting students' active participation and stimulating students' emotions.

Research Activity

Learning Inventions
- A gamifies digital activities

Application
- The content of 2 lectures has been converted to digital games, the classroom has been divided into teams, and a leaderboard has been designed to create long-term students' engagement and motivation. Points and badges are collected every week and those teams who achieve the goal of the competition receive bonce grades for being active students.

Analysis Tools
- N/A

Impact

The preliminary findings of the first round revealed a positive impact of the proposed approach in promoting students' active participation and stimulating students' emotions.

- Student Satisfaction
- Student Active Participation
- Stimulate Students' emotions

Active, engaging and fun learning situation

Overview

During the first semester in 2019/2020, IAU applied a blended teaching/learning model in two courses using the flipped classroom strategy, the new model has been applied over 8600 students by 56 faculty members in 7 colleges.

According to interview findings, most of the faculty members stated that students were not active due to the lack of motivation and engagement in classrooms, teachers also found the activities management in large classes (almost 70 students per class) was quite difficult too.

Although classroom time was reserved "only" for learning activities, but it was clear that the way that the activities have been designed and delivered didn't promote students' participation or stimulate students' emotions such as motivation, happiness, engagement, satisfaction, and feeling of achievement.

Gamification (the use of game elements and game design techniques in non-game contexts) provides the essential components to motivate participation, engage students in an active way and stimulate students' emotions. Therefore, digital gamified activities have been introduced and applied during lectures time at the beginning of the second semester.

Outcomes

The outcomes of are focusing on increasing students' active participation, improving student's satisfaction, and helping teachers to manage the in-class activities in an efficient way. Both teachers and students were enthusiastic to participate in the experiment. According to the preliminary observation and interviews teachers and students show a positive feedback regarding the new teaching/learning activities.

- Increase students' active participation.
- improve student's satisfaction.
- Suggest an instructional design model to help teachers create active, engaging and fun learning situation using gamified classroom activities using technology.

Future Developments

1. Re-design the rest of lectures to be gamified.
1. Integrate new tools.
1. Make good use of the features that LMS provides to gamify the online activities as well

Apply the experiment in different disciplines

Medium-Term
Improve the instructional model

Short-Term
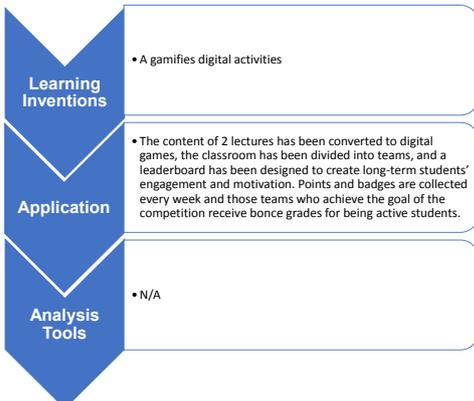**Train More teachers on how to gamify their classes**

Research Objectives

Assess the impact of using digital gamified activities on increase students' active participation and satisfaction.

- Propose an instructional design model based on digital gamified classroom activities.
- create active, engaging and fun learning situation
- Assess the impact of the current intervention on students' active participation and satisfaction.

New Learning Space Setup

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Feedback in Formative Assessment: Plausible By Peers?

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1. Feedback aims

- Students benefit from fee back on their assignments and activities
- Effective feedback should be timely, constructive and authentic

Self & peer assessment in Blackboard

2. Current approach

- Students submit or perform activities and wait for feedback
- But realistically, teachers are unable to provide feedback on-demand
- Teachers reluctant to use innovative approach and technology
- Belief that students are not expert – so they cannot judge others

3. Why is this a problem?

- Does not support independent and lifelong learning
- Missed opportunities for reflective and collaborative learning
- Students remain passive recipients of 'expert' advice
- Inefficent use of teacher's time

4. Proposed intervention

Action research using:
- self and peer assessment (as in-class activities)
- exemplar with rubric/checklist
- technology for anonymous and prompt peer feedback

5. How will this solve problem?

By:
- improving student learning through active reflection
- making learning activities students-centred
- drastically or completely reducing feedback burden on teachers

6. What are the steps?

Set up assignment (eg. Self & Peer Assessment in Blackboard)

Students review exemplar activity using rubric

Submit assignments (Submission period)

Use technology to give and receive anonymous feedback using criteria (Evaluation)

Students act on the feedback and resubmit

Teacher grades work – not students

7. What are the outcomes?

Preliminary observations:
- Positive students engagement
- Learn to receive and give constructive feedback
- Better understanding of assessment process
- Active learning in real-time
- Developing deep-learning culture
- Opportunity to reflect and improve by looking at others' work
- Develop process of 'critiquing'
- Cultivating a 'learning community'
- Acquiring authentic & lifelong learning skills
- Develops communication & collaboration skills

8. What are the conclusions?

- Peer feedback is entirely plausible and effective
- More engaged and autonomous students with teacher as facilitator
- Most students find giving feedback useful but difficult to assess without exemplar

Learnt by giving feedback (%)

9. Long-term impact ?

- Can radically overhaul formative assessment practices
- Lasting impact on students learning experience
- Just one comment sums up impact and potential of peer feedback, "peer feedback is good as you have same mentality as them – so you can understand where they are coming from"

Students using technology for feedback

Students active in discussion

10. References

Robyn Yucel, Fiona L. Bird, Jodie Young & Tania Blanksby (2014) The road to self-assessment: exemplar marking before peer review develops first-year students' capacity to judge the quality of a scientific report, Assessment & Evaluation in Higher Education, 39:8, 986-971

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عمــادة التطـوير الجـامعي
DEANSHIP OF ACADEMIC DEVELOPMENT

Listen to Your Ss' Voice: Share the Rubrics!

Wessam Mohamed, Dr. rer.nat., Head of Testing & Examinations Unit

Center for Quality of Assessment & Examinations , VP office

Abstract

Background: Rubrics are motivational tools for monitoring and grading students' learning.

Research Objectives: a) validate the rubrics development process for assessing PowerPoint skills b) examine students' perceptions of this practice.

Methods: Upon the completion of the assessment task, questions were given to 7 students at Masters level course in a health program

Results: 71-100% of students benefited from sharing the rubrics and achievement scores increased

Conclusions & Implications: Validation of assessment tools and more student engagement in assessment are required at both under &post grad.

Overview

According to the IAU Guidelines for Assessment Policies & Procedures, assessment tools, including rubrics, are required to be validated and announced to students. This is to help them self-monitor their learning and enhance their achievement of the learning outcomes. The quality of these practices are controlled and ensured at the undergrad level. Yet for the post grad level, it is unsure whether the same practices are calibrated. Upon discussions with one of the Master-Level instructors at the end of the second semester 2019, it was observed that rubrics for assessing PowerPoint skills was neither validated nor shared with the students before their evaluation. As this might lead to a lack of fairness, one of the key foundations of assessment and less students' involvement in the assessment process, a strategy intervention is inevitable

Research Activity

Learning Intervention
Validating& sharing rubrics for evaluating PowerPoint skills with Students(Ss)

Plan & Act

Application
1. Revise& Modify
2. Share on Black Board
3. Evaluate
4. Ss' feedback

Observe

Analysis Tools
+ Achievement results
+ Students perceptions

Reflect

Outcomes

1. **Instructor**

- Received constructive feedback upon her work
- Use of validated rubrics at assessing PowerPoint Presentation Skills

2. **Teaching & Learning**

- Improve quality of assessment practices
- More student involvement in assessment

3. **Students**

- Self-Monitoring of their own performance before evaluation
- Improvement of their achievement of learning outcomes

Appropriateness of sharing time?	
%☺	%☹
43%	57%
Your Suggestion?	
3 weeks prior to due date	

Increased % Achievement	
% Achievement	% Students
100	28.5
95	28.5
90	28.5
80	14.5

Usefulness of sharing
- Present in a professional way
- Find out weak areas
- Improve before submission

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❖ Moskal, B. (2000) "Scoring Rubrics: What, When and How?," Practical Assessment, Research, and Evaluation:Vol.7,Article3

❖ O'Neill, Lindsay C., "Student perceptions regarding the use of rubrics in writing assignments" (2007).Theses and Dissertations. 820. https://rdw.rowan.edu/etd/820

Impact

1. **The instructor**
expressed her full acceptance and appreciation of using the current intervention.

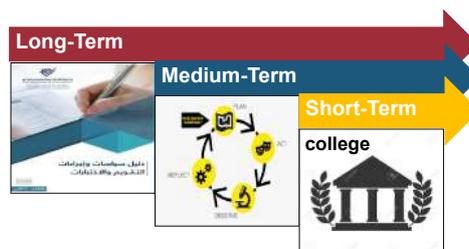*Will definitely use it....have it as a practice in all my courses*

❖ Self-Monitor
❖ Better scores
❖ Insight of Instructor's view

2. **The Students**
clearly perceived the benefits of sharing the rubrics with them before their evaluation(100%) by other instructors in other courses.

Future Developments

❖ **Short Term:** calibrated rubrics at the college level.

❖ **Medium Term**: Further action research on validating other assessment tools

❖ **Long –Term:** Extend IAU polices to the post-grad level

Long-Term

Medium-Term

Short-Term

college

Fellowship Program in Learning and Teaching
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IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY
عمــادة تطويــر التعليـم الجامعــي
Deanship of Academic Development

The Impact of Using Jigsaw Strategy on Developing Cognitive skills for students

Ihab Lotfy Abdelaal Abed, associate professor

VICE PRESIDENCY FOR STUDIES, DEVELOPMENT AND COMMUNITY SERVICE
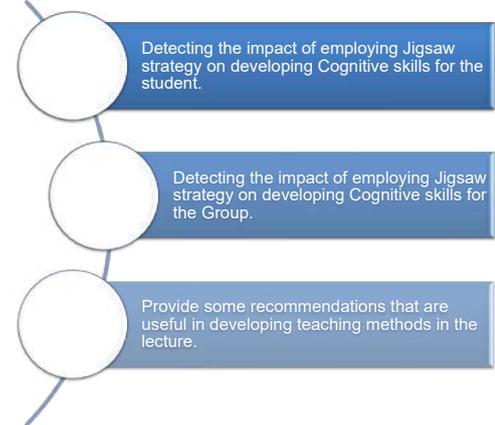
Abstract

The study aimed to identify the impact of using jigsaw strategy in the development of cognitive skills. The researcher followed the pilot approach, and the study community consisted of all students of the asset assessment course, and the sample of the study consisted of 72 students. The sample was divided into Two equal groups, an experimental group studied using the Jigsaw strategy, and a control group studied in the traditional way. The results resulted in higher performance rates of the experimental group, both at the individual levels and the team.

Overview

In an era of growing scientific knowledge and rapid development in various areas of life, teaching methods are constantly evolving for the better to keep pace with future developments and challenges. By understanding the learner of the information and not memorize it.

The teaching method is the way in which the objectives of the curriculum are achieved at all levels of study, so the educators realized the importance of learning and collaborative work, and jigsaw strategy is one of the forms of collaborative learning, which aims to integrate all students in the tasks required of them, and to make the subject Learning is exciting to learn, reduce student introverts, and make the learner an expert in their mission.

Research Aims

- Detecting the impact of employing Jigsaw strategy on developing Cognitive skills for the student.
- Detecting the impact of employing Jigsaw strategy on developing Cognitive skills for the Group.
- Provide some recommendations that are useful in developing teaching methods in the lecture.
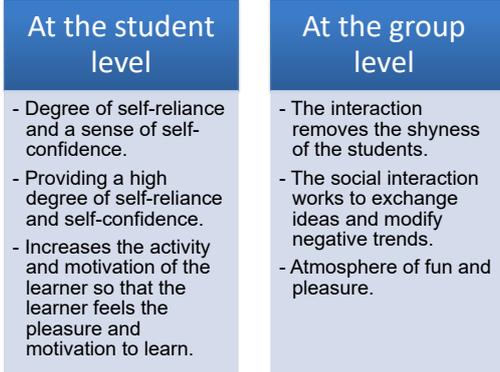
Research Activity

The researcher used the experimental method, where he measured the effect of "Jigsaw Strategy", on "cognitive skills". The researcher divided the sample study 72 students into Two equal groups (6 experimental groups and 6 control group each group contain 6 students), The steps to implement the Jigsaw strategy were:

1. The student in the group has been provided with his own educational materials.
2. Discussion groups have been formed to exchange ideas.
3. Each student explains and teaches his colleagues in the original group what he has learned.
4. The Professor observes the processes that take place between the members of each group.
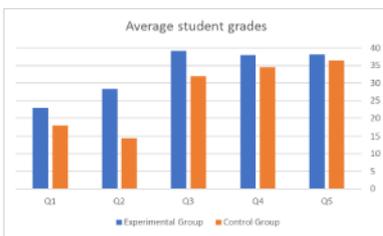5. Evaluate all students in two ways (Kahoot app, crossword puzzle game).

Outcomes

1. There are differences between the average grades of the students of the groups in favor of the students of the experimental group.
2. Developing cognitive skills, as follows:

At the student level

- Degree of self-reliance and a sense of self-confidence.
- Providing a high degree of self-reliance and self-confidence.
- Increases the activity and motivation of the learner so that the learner feels the pleasure and motivation to learn.

At the group level

- The interaction removes the shyness of the students.
- The social interaction works to exchange ideas and modify negative trends.
- Atmosphere of fun and pleasure.

Impact

- Based on the objectives of the research, the most important results are the high scores of the experimental group in the evaluation compared to the control group at the level of all questions.
- The results of jigsaw's evaluation of jigsaw strategy by students were as follows:

Knowledge acquisition and perception; Encourages collaboration and exchange of ideas; Enhances the relationship between Professor and student; Gain practical experience; Feel fun; Depend on thinking; The Professor provides enough feedback

Future Development

Long-Term Development — Implementing the project learning strategy in teaching.

Medium-Term Development — Use a variety of active learning strategies in teaching.

Short-Term Development — Introducing modern teaching methods in teaching and practice different types of thinking.

Average student grades

Average group grades	
Experimental Group	**Control Group**
22.890	١٧,٩٩١
٢٨,٣٦٥	١٤,٤٨٩
٣٩,١٨١	٣١,٩٣٩
٣٧,٩٤٩	٣٤,٤٨٣
٣٨,١٠٦	٣٦,٣٥٧

References

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Perceptions of students on using Kahoot application in teaching and learning session

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Abstract

Kahoot, is a popular game-based learning platform to develop active learning. A study was conducted to find out the usefulness and effectiveness of using Kahoot application on 17 undergraduate students studying at the department of respiratory care. The study finding found that incorporating Kahoot in the classroom is extremely useful for 47% of the respondents and useful for 53% of the respondents.

Furthermore, the students revealed that inclusion of this method increased the interest of students in the class. Additionally, this method was found to have a positive impact on student motivation, excitement, rapid-thinking abilities and the ambition to get high score.

Overview

The majority of the students who are currently studying in universities were born in a high technological environment. They are also studying in classes which are well equipped with technological tools for education. Thus, educators have to use the appropriate educational technology tool in the classroom to keep up with technology advancement [3].

One of the most important educational technology tools is game-based learning platform (i.e. Kahoot) [1]. "The music, colors, and excitement brought by Kahoot! encourage student focus and can excite a classroom" [2]. So, this study elicited the perceptions of respiratory care students towards using Kahoot in classroom.

Research Aims

1.
• To elicit students' perceptions on the usefulness of Kahoot application for active learning

2.
• To elicit students' perceptions of the positive and negative impact of using Kahoot in the classroom

3.
• To elicit the students' perceptions of the effectiveness of the Kahoot in teaching

Research Activity

What: In this study, the Kahoot application used as game-based learning platform in classroom to evaluate the student experience of using Kahoot application by responding to survey.

How:
• A free account is created on kahoot.com
• Multiple choice questions prepared and added to the application
• Game is projected on the board by the computer connected to the projection in a way that all the classroom can see
• Students joined the game
• Feedback provided after each question

Learning Invention	• Game based learning
Applications	• Kahoot in classroom
Analysis Tool	• Survey

Usefulness of Kahoot

- Extremely useless
- Somewhat useless
- No opinion
- Somewhat useful
- Extremely useful

Outcomes

The students enjoyed, felt motivated and very excited of using the application during the class. Based on the students' feedback, the following is the most important outcome with the Mean value (Min 1, Max 5).

- Timely questions in Kahoot activities increase student excitement (Mean value: 4.9)
- Kahoot improves the rapid-thinking abilities of students (Mean value: 4.9)
- Using Kahoot in education increases student motivation (Mean value: 4.6)
- The scoring system of Kahoot increases the ambition of students to get high score (Mean value 4.5)

Future Development

Short-Term
Utilize all features of Kahoot application (i.e. Discussions and Surveys).

Medium-Term
Explain to my colleagues the importance of using Kahoot in the classroom

Long-Term
Utilizing another game-based learning (i.e. Quizizz, Quizlet, Quizalize)

Impact

Positive & Negative

1. Increase motivation and a self-esteem (88 %)

2. Enhances student collaboration (65%)
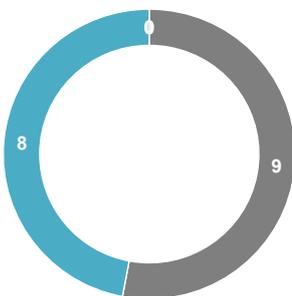
3. Enhances learning experience (65%)

4. Enhances student engagement (59%)

1. Excessive screen time (41%)

2. Negative competition between the students (18 %)

References

1. Bicen, H., & Kocakoyun, S. (2018). Perceptions of students for gamification approach: Kahoot as a case study. *International Journal of Emerging Technologies in Learning (iJET)*, *13*(02), 72-93.

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How Does E-Mediated Education in Classroom Overcome Behavioral, Cognitive, and Emotional Female Students' Dis-Engagement at the IAU?

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Directorate of Monitoring Academic Performance, VPAA-IAU.

Abstract

This participatory action research seeks achieving significant change of practice needed by male teachers who teach female students at IAU using *Bothooth* classrooms. It answers whether e-mediated education in classroom can overcome cognitive, behavioral, and emotional dis-engagement. It applies simultaneous process of planning, acting, observing, and reflecting on using Padlet as an instrument to enhance female students involvement. Interviews, observation and survey were used as methods to help scaling the problem, observe students engagement in classroom, and critically reflect on the effectiveness of using Padlet. Results revealed that using e-mediated education instrument such as Padlet helps overcome the emerged issues and enhances students behavioral, cognitive, and emotional engagement.

Overview
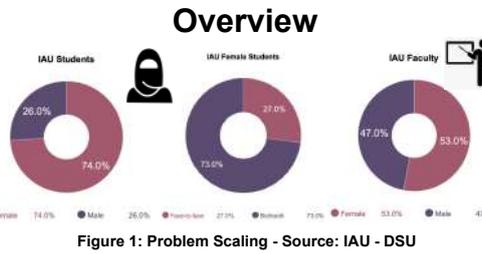
Figure 1: Problem Scaling - Source: IAU - DSU

Research Problem

✓ based on previous charts Female students have to be taught by male teachers.
✓ Most colleges use Bothooth classrooms which causes behavioral, cognitive, and emotional disengagement.
✓ A change of practice is needed to overcome this dilemma through using e-mediated education (EME). Literature emphasizes that EME has been associated to an increase in student engagement components.

Research Aims and Methods

Table 1 - Aims and Methodology	
Aims	**Methods**
Aim 1: To investigate the major issues causing female students disengagement from both students and teachers	Interviews
Aim 2: To implement EME instrument to overcome the emerged issues in classroom.	Observation
Aim 3: To evaluate the impact of using Padlet to enhance students behavioral, cognitive, and emotional engagement.	Survey

Research Activity

| 1	Investigate the research problem by analyzing numeric data on the IAU Dashboard at the DSU.
2	Determine the major issues by interviewing both students and faculty.
3	Cluster the emerged issues into themes.
4	Introduce Padlet to a sample of Students (one class) and use it to implement some learning activities.
5	Evaluate whether the determined issues can be overcome through padlet by observation and analyzing students' reflection.
6	Reflect on my own experience and use the results as basis for phase 2.

Outcomes

- The Bothooth classroom reflects an important cultural/religious necessity; however it hinders female students/male teacher interaction.
- Major issues causing female students disengagement with male teachers in the classroom from faculty viewpoint are grouped in 4 clusters:

Table 2: Results of Faculty Interviews

Cluster 1: Learning activities	Cluster 2: Student assessment
• Practical Courses • Teaching strategies • Student behavioral cues such as nodding and eye contact	• Using observation as a tool • Invigilation • Immediate feedback
Cluster 3: Perseverance	**Cluster 4: Ethics**
• Attendance • Repeated on/off board • Talking, laughing, watching videos, social media.	• Taking photos of teachers without permission • Classmate distraction

- Using EME instrument such as Padlet represents a necessary change of teaching practice. It helps overcome the emerged issues of the 4 clusters and; therefore, enhances students behavioral, cognitive, and emotional engagement.

Impact

- A consensus of students emphasized that using Padlet was enjoyable although it was their first time to use it.
- Students summarized the features of Padlet that help reinforce their involvement:

Figure 2: Results of students survey on the impact of Padlet
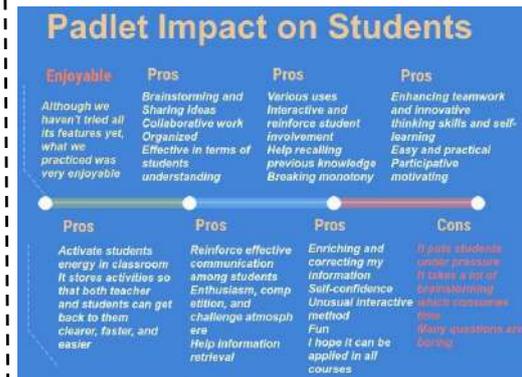
- It is observed also that learning activities and assessment have become easier and more effective. Moreover, students perseverance and ethics become more responsible in classroom by using Padlet.
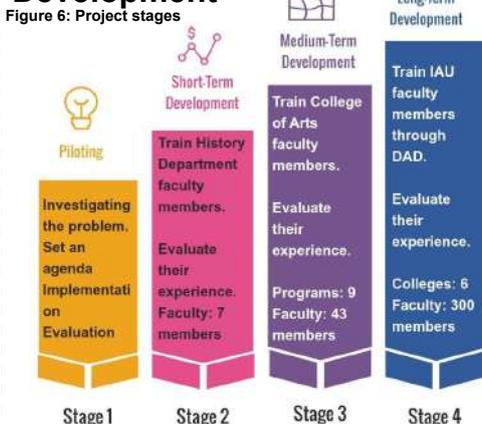
Future Development

Figure 6: Project stages

Figure 3&4: Implementing Padlet in Classroom
Figure 5: Colleges with Bothooth Classrooms - Source: IAU - DSU

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Development of a Self-Assessment Tool for Workplace-Based Training on Phlebotomy using the ADDIE Model

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Department of Clinical Laboratory Sciences, College of Applied Medical Sciences

Abstract

Given the nature of laboratory work, especially in busy hospitals, continuous monitoring of students' training and provision of frequent feedback is challenging. This has long been a point of weakness as indicated by both students and personnel in the course evaluation surveys. One way to overcome this issue is by holding students partially accountable for monitoring their own progress and identifying their learning needs.

Self-assessment will be introduced as part of the formative evaluation of students training in the OPD of KFHU to aid students in identifying their own strengths and weaknesses, foster self-regulation (Bose 2001), and to improve their performance, especially in psychomotor and affective skills (Colthart, 2008).

ADDIE process was used as it is recommended for systematic design and development of training programs (Allen 2006), as evidence suggests improved validity and reliability is associated with the quality of the self-assessment tool design (Falchikov, 1989). Students who used the checklist were asked to reflect on their experience, and will be followed by tutor's assessment with the same checklist to examine correlation. Further, an evaluation questionnaire will explore attitudes towards self-assessment.

Research Aims

☑ Develop and implement a self-assessment checklist, as part of phlebotomy workplace-based training, using ADDIE model

☑ Instruct students using Gibbs reflection cycle as a tool for self-assessment, evaluation of training needs and setting future performance goals

Anticipated Outcomes

The developed tools for self-assessment are expected to help students:

☑ Identify own strengths and weaknesses
☑ Improve performance
☑ Develop self-awareness
☑ Enhance self-esteem
☑ Improve communication with the tutors

Future Development

Short-term
- Monitor and support the process of self-assessment for students training at OPD in the current semester
- Follow up students assessment with tutor's assessment to measure discrepancy and evaluate validity

Mid-term
- Update the self-assessment process/tools according to the evaluation provided from the current semester through students reflection, student/tutor evaluation surveys

Long-term
- Extend the self-assessment process to other training stations in the labs of KFHU

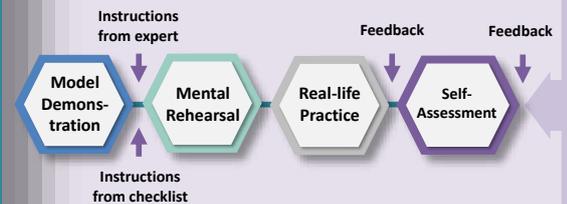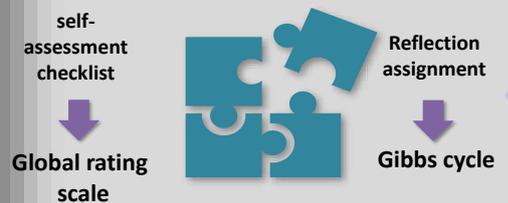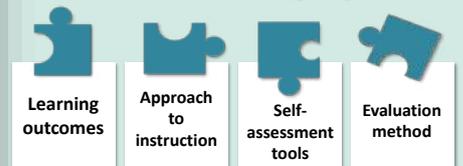**Analysis / Design / Develop / Implement / Evaluate**

ADDIE

Literature review on self-assessment (Bose, 2001; Colthart, 2008)

Limitations · Factors · Skill Analysis

Skills Schemata (Romiszowski, 1981)

Learning outcomes | Approach to instruction | Self-assessment tools | Evaluation method

self-assessment checklist → Global rating scale

Reflection assignment → Gibbs cycle

Instructions from expert · Feedback · Feedback

Model Demonstration — Mental Rehearsal — Real-life Practice — Self-Assessment

Instructions from checklist

Evaluation
- Self-Assessment Tool → Students Reflection / Questionnaire (Likert scale)
- Validity of Self-Assessment → Correlation with Tutor's Assessment

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Deanship of Academic Development

How To Improve Students' Academic Writing Skills

Mohamed A. Kandil, Assistant Professor
College of Applied Medical Science
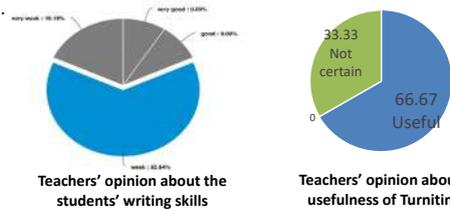
turnitin

feedback studio

Abstract

Poor academic writing skills of Emergency Medical Care (EMC) students is a challenge that mandates prompt attention and smart solution

In this research, I tried to explore the educators and students' views regarding the students' academic writing skills, and the impact of the first use of 'Turnitin' in EMC department.
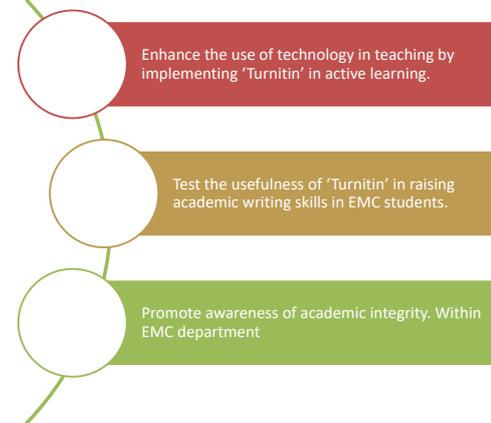
Most of the teachers (83.3%) confirmed the problem, and favored the use of 'Turnitin Feedback Studio' to solve it. In addition, most of the students, after their initial application of 'Turnitin', were satisfied, and 72.6% of them categorized it as useful.

Background

Increasingly spreading plagiarism in academia not only negatively impacts academic integrity, but also impairs students' skills development.[1] Students tend to plagiarize either deliberately due to their inability to create original pieces of literature, or unintentionally due to lack of understanding regarding proper referencing techniques.[2] Although IAU has been providing free access for Turnitin Feedback Studio for over 3 years, our students never used it.

Teachers' opinion about the students' writing skills

Teachers' opinion about usefulness of Turnitin

33.33 Not certain
0
66.67 Useful

Research Aims

Enhance the use of technology in teaching by implementing 'Turnitin' in active learning.

Test the usefulness of 'Turnitin' in raising academic writing skills in EMC students.

Promote awareness of academic integrity. Within EMC department

Research Activity

- Turnitin Feedback Studio is a plagiarism-detector software through which students submit their assignments. They can get structured feedback for their work from both teachers and the software in the form of similarity report. The program unveils grammatical and spelling mistakes and guides the students to fix them.

Observation

- Most students can't write assignments in their own words while relying on credible sources.
- Some students copy each other's assignments (Collusion).
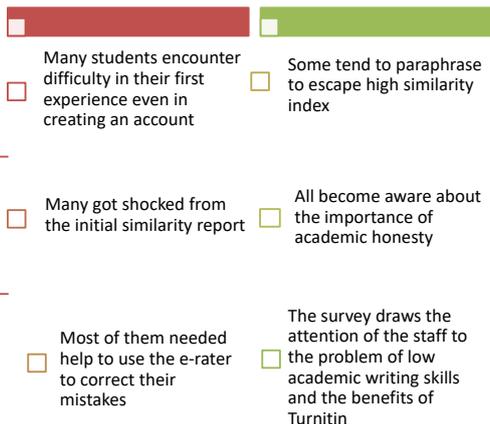- Many students don't know how to correctly cite references.

Introduction of Turnitin

- Orientation session to the students about 'Turnitin'.
- Adding an assignment, allowing students to resubmit, and checking their similarity report before final submission.
- Workshop after 1st submission to help students interpret their similarity reports •

Data collection:

a. Tthe last semester's assignments. •
b. Staff and students' surveys (Questionpro). •
c. Reflection assignment and similarity reports (Turnitin).•

Outcomes

- Many students encounter difficulty in their first experience even in creating an account
- Some tend to paraphrase to escape high similarity index
- Many got shocked from the initial similarity report
- All become aware about the importance of academic honesty
- Most of them needed help to use the e-rater to correct their mistakes
- The survey draws the attention of the staff to the problem of low academic writing skills and the benefits of Turnitin
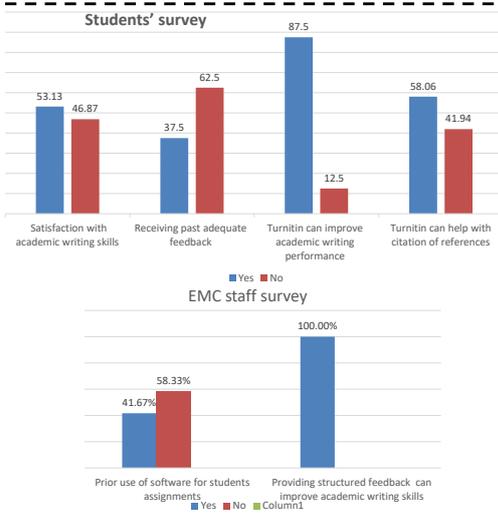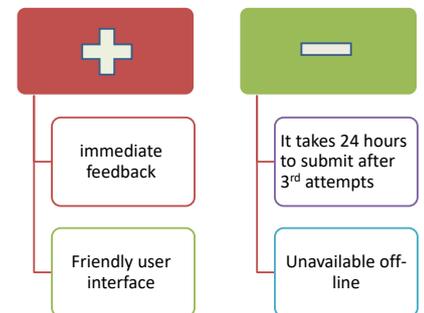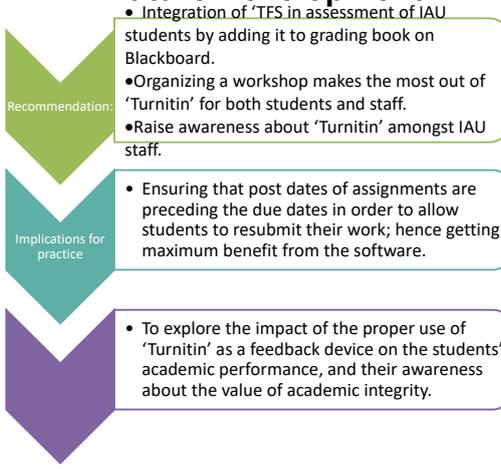
Impact

The initial similarity reports were mostly high but with subsequent submission (3 attempts on average) The similarity index declined to the green zone. However, the main drawback was that some students focused on lowering their indices, paying little attention to development of ideas and enrichment of debates.

Here are some students quotes about their experience with **Turnitin feedback studio** :

+
- immediate feedback
- Friendly user interface

–
- It takes 24 hours to submit after 3rd attempts
- Unavailable off-line

Students' survey

53.13 | 46.87
37.5 | 62.5
87.5 | 12.5
58.06 | 41.94

Satisfaction with academic writing skills | Receiving past adequate feedback | Turnitin can improve academic writing performance | Turnitin can help with citation of references

■ Yes ■ No

EMC staff survey

41.67% | 58.33%
100.00%

Prior use of software for students assignments | Providing structured feedback can improve academic writing skills

■ Yes ■ No ■ Column1

Future Development

Recommendation:
- Integration of 'TFS in assessment of IAU students by adding it to grading book on Blackboard.
- Organizing a workshop makes the most out of 'Turnitin' for both students and staff.
- Raise awareness about 'Turnitin' amongst IAU staff.

Implications for practice
- Ensuring that post dates of assignments are preceding the due dates in order to allow students to resubmit their work; hence getting maximum benefit from the software.

- To explore the impact of the proper use of 'Turnitin' as a feedback device on the students' academic performance, and their awareness about the value of academic integrity.

References

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Deanship of Academic Development

Fellowship Program in Learning and Teaching
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Implementing Team-Based Learning Approach to Improve the Mathematical Achievements in College of Applied Studies & Community Service

Azhar Alhammali, Assistant Professor
College of Applied Studies & Community Service

Abstract

There is a large gap in mathematical achievement of students of Applied Studies & Community Service. One reason is the divergence of their academic paths in high school (science & art programs).
In this action research project, I implement team-based learning (TBL) [2] approach in selective topics in my classes. The results show a remarkable improvement in the students' engagement.

Overview

College of Applied Studies & Community Service (COASCS) accepts students from both science and art programs. Classrooms are mixed of students of both backgrounds. First-year students are required to take two core courses in mathematics. The first one is Principle of Mathematics (Math 110) which includes kind of repeated topics for students of science background. However, they are new and intense for students of art background. This results in a large gap in their mathematical understanding and hence their performance; the grades are either too high or too low.
Studies shows that 50% of learning can be achieved through discussion groups, and 90% of it can be achieved by teaching others [1]. Based on that, I've chosen TBL approach to be implemented in my math classes.

Research Aims

1. To rise the understanding level of mathematics in COASCS.

2. To improve student engagement in math classes.

3. To decrease the standard deviation of math scores.

Research Activity

Learning Incentive
- Team-Based Learning(TBL) Approach

Applications
- Classes are divided into small diverse groups that involve students of variety levels and different backgrounds.
- Students are asked to do some reading before coming to class.
- In class, students are asked to do an assignment individually, and then to share and discuss the results within their groups.
- I monitor their work, and then give a mini-lecture to clarify the concepts and emphasize the common mistakes and difficulties.

Analysis Tool
- Test score charts, bar graphs, line graphs, and observations.

Outcomes

- Remarkable improvement in students' engagement in class.
- Reasonable scores in TBL assignments.
- Some students face difficulties in reading math textbooks by their own.
- Some high-level students prefer to work individually.

Impact

❶ The actual period of implementing TBL so far was only two weeks, so the impact is not clear yet. However, most of TBL class were active and engaged compared to previous term.

❷ TBL positively affects not only student learning skills, but also their teaching and communication skills.

1st term 2019-2020 Math 110 Midterm Exam Grades (Before TBL Implementation)
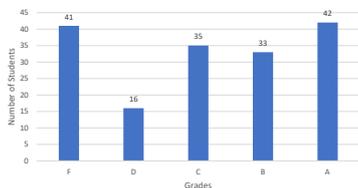
Grades of TBL Assignment 1 (2nd term 2019-2020)
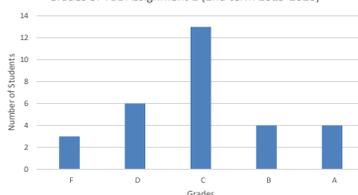
Future Development

Short-Term
To continue working on TBL method until the midterm to see the impact on the exam scores.

Medium-Term
To integrate other student-centered teaching methods alongside TBL.

Long-Term
To continue research for teaching strategies to improve students understanding of math.

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Understanding the role of voltage gated ion channels in action potential generation: a role-play approach

Dr. Mohamed Salama, Assistant professor, Imam Abdulrahman Bin Faisal University
College Of Applied Medical Sciences in Jubail
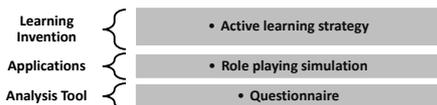
Abstract

In physiology, understanding the role of various positions of the gates of voltage ion channels during action potential is a real challenge for students and instructors This study was undertaken to assess the perception of students regarding the use of role playing simulation of different positions of the gates of ion channels during action potential. The study was conducted on 44 undergraduate applied medical science students from neuroscience department . After the role playing session All students completed a questionnaire about their perceptions regarding the use of role playing approach. The study revealed that majority of students (N=39) (88.6%) perceived the simulation session positively by mentioning that simulation session is useful and only 5 students (11.4%) mention that it was not useful .Also, 31 students (91.17%) liked to participate ,11 students did not participate due to shyness and 2 students showed no interest neither to participate nor to watch the simulation.

Overview

In medical education ,there is a growing demand for active learning methods. Role-play is one of such methods which takes place in all four learning environments "feeling, thinking, watching and doing" (1). Role-play is also highly motivating and it can provide immediate feedback (2), and involves two potential modes of involvement – cognitive and physical (3) .

Role-play simulation may be helpful in clarification the role of voltage gated ion channels in action potential generation which is considered perplexing to students . So, this study was conducted to assess the perception of neuroscience students towards the use of role playing to teach and learn how voltage gated ion channels participate in action potential generation

Research Aims

1.

- To measure students' perceptions on the usefulness and effectiveness of role playing simulation for active learning

Research Activity

What: This study evaluates the students perception of usefulness and effectiveness of role playing in teaching and learning the role of voltage gated ion channels in action potential generation .

How:
- For simulation session ,each student was provided was a sign indicating their role (m gate ,h gate ,n gate , Voltage gated Na and K channels)
- Students were divided into participants and advisors
- Participants were recruited in pairs ,one acts by his hand as the channel wall, and the other student hands act as the gates of the channel
- After simulation there was a debriefing lecture and discussion .Then followed by the Feedback questionnaire .

Learning Invention	• Active learning strategy
Applications	• Role playing simulation
Analysis Tool	• Questionnaire

Was is it useful using Physical method of teaching such as action potential in Voltage gated channel?

44 responses

- Useful.
- Not useful.

88.6%   11.4%

Outcomes

The students felt that role-play was effective whether they acted as a participant or watched the simulation. Based on the students' feedback, the following are the most important outcome of student perception regarding this simulation .

- Participation helps to understand the process better than watching it.(91.17%) (31 students)

- Watching the simulation is more useful than participation (40.90%) (18 students)

- Because of shyness , I don't like to participate (25%) (11 students)

- I am not interested to participate or watch simulation (4.5%) (2 students)

- I don't mind participating but only during lab. hours not in lecture (22.90%) (10 students)

Future Development

Short-Term

The instructor should take more time for extensive debriefing

Assess perception by pre- and post-maneuver test

Medium-Term

1-Application of role playing in more topics during physiology teaching

Long-Term

Assess long term effects of role playing

Conduct more studies to compare between perception of participants and advisors

Impact

Positive & Negative

1. Actually both of the simulation and participation helps me as a student.

2. Role playing is highly motivating and provides immediate feedback from students

1. When role plays are unstructured and unplanned , active learning does not necessary occurs.

2.I did not like debriefing session

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Integrating A Scientific Research Plan into Undergraduate Courses

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**College of Science and Humanities in Jubail**

Abstract

The scientific research is one of the important themes of universities for achieving 2030 vision. In the computer science department at the college of science and humanities in Jubail, the scientific research methods are rarely applied and the number of indexed research publications is very low. To address this problem, I propose integrating research plan into the undergraduate courses. This plan is setting gradually from level to level and integrally within the level courses.

The goal of this action research is to evaluate the study of integrating the scientific research plan into the undergraduate courses of computer science department. To do so, the questionnaire of ten questions has been designed and distributed to the lecturers of the computer science department. The study shows that the scientific research skills of students are improved with about 93% of positive responses.

Motivation

Scientific research can enrich and improve the teaching and learning process. However, integrating research methods into teaching process is challenging. In the computer science department, there is a lack of applying the scientific research skills on courses. Hence, the motivation behinds this integration is teaching undergraduate students the basic skills in the scientific research method by doing and reflecting.

Research Aims

The aim of this action research is to evaluate the efficiency of integrating a scientific research plan into undergraduate courses. To achieve this aim, a questionnaire has been conducted.

Data collection	No. of questions	Target
Questionnaire	10	13
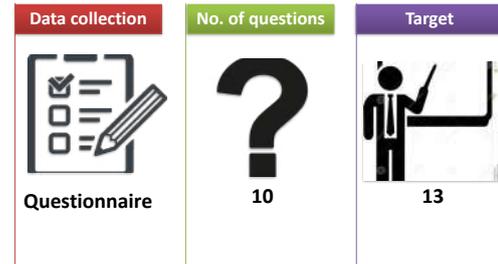
The Integration Plan

Students are guided through the scientific research method by taking one step at a lecture and undertaking one activity to help students to understand this step of the scientific research method.

For example, for writing a literature review about specific topic, the lecturer assigns a maximum of ten minutes in the lecture to teach students what is a literature review and how to write it. After that, a self-learning activity should be given to the students to explore more about both the scientific research method and topics.
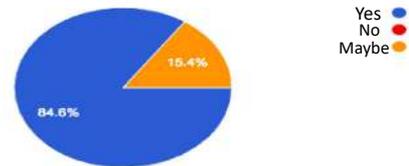
Students will submit their drafts regularly to their lecturers and the lecturers will provide a feedback to them.
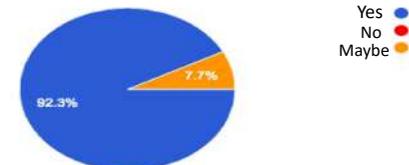
- 10 minutes in the lecture
- Self-learning activity
- Submit draft
- Give a feedback

Outcomes

Yes ● / No ● / Maybe ●

100%
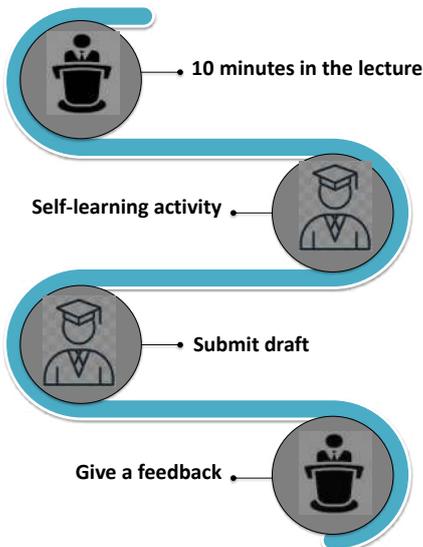
Increase the scientific research skills for students.

Yes ● / No ● / Maybe ●

84.6% / 15.4%

Increase the self-learning skills for students.

Yes ● / No ● / Maybe ●

92.3% / 7.7%

Increase the research collaboration between lecturers and students.

Yes ● / No ● / Maybe ●

100%

Increase the critical thinking and problem solving skills for students.

Impact

The impacts of integrating a research plan to the course plan for only one semester are:

- **Starting scientific research workshops in the computer science department.**

0 → 11

- **Increasing the number of students' publications in Scopus.**

2 → 7

- **Increasing the number of students' scientific research activities.**

5 → 68

Future Development

Collect students' opinions → Study the obstacles → Improve the process

Task-Based Learning in Microbiology

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College of Dentistry

Abstract

This is an action research in which 2nd year dental students collaborated in groups to design a model that clearly demonstrate the structure of one micro-organism. All models were presented in an exhibition and they were assessed by peers and faculty members from other courses for innovation, authenticity, and creativity. The approach was appreciated by students, faculty members and college leadership.

Research Aims

- Introduce new concepts of microbiology in an innovative approach.
- Motivate students to work in teams in planning and developing model on microbiology organisms.
- Improve communication skills among students throughout the project and presentation skills during the exhibition.

Overview

Task-based learning (TBL) is an active student-centerd learning strategy that empowers students for autonomy, constructive investigations, goal-setting, collaboration, communication and reflection. Microbiology and Immunology course used to have low performance and satisfaction among dental students. There's a need to introduce an innovative approach for teaching and learning.

Methodology

Students worked in group to perform a specific task to present selected concepts in microbiology or immunology in a 3D model. Then models were presented in an exhibition and assessed using rubrics by peers and faculty members from other courses at the Dental College.

Results

Students learning was validated by their grades and ability to explain the structure of the organism to their peers. In response to a survey, they have demonstrated their excitement and motivation in the form of the following sample quotes:

> My view has changed 360 degrees About microorganisms.

> I like receiving feedback and appreciation to our (teams) efforts

> I've learned things that I couldn't learn alone.

> We used the model to clarify the concept.

> I gained confidence while working with my colleagues.

Student designed invitation card for senior colleagues and faculty members to attend the exhibition.

Faculty members were engaged with students in constructive discussions.

College Leaders were highly cooperative and they provided all logistics for the exhibition event.

What's Next?

The next step is to use task-based learning as an approach beyond microbiology, to integrate among various courses in clinical context for senior dental students.

Limitations

Time allocated was not enough for some groups to bring their best ideas. Some were not so cooperative with their peers.

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Using Slido App: A key source to boost-up student's activeness and engagement in the Classroom

Dr. Ali K. Bawaneh, Assistant Prof.

Deanship of Academic Development

Abstract

This research was conducted to improve students' activeness, confidence and engagement at classroom by sharing their idea, comment, and questions.

This research applied slido.com application as the media to achieve research objectives. It was a classroom action research which had been conducted in teaching and learning course at Prep. Year, IAU. The researcher took his class as the sample of the research.

The researcher observed the improvement of students' activeness by collecting the data through questionnaire and interviews, created for this purpose.

The results indicated that there was an improvement in students' activeness, confidence and engagement in delivering questions, ideas, giving comments, and doing simple task.

It can be drawn a conclusion that there is an improvement in students' activeness in the classroom taught using slido application.

Overview

Technology plays a great role in improving education and heightening learners' standards. Researchers (Papastergiou, 2009; Prensky, 2001) are more and more exploring the contribution of this expertise in teaching and learning.

Kili (2005) uncovers that digital applications represent real experiential learning to students and highly effective and motivating for teaching and learning (Papastergiou, 2009).

Similarly, Wang (2015) finds that the implementation of apps such as Slido into classroom lectures underpins student engagement and enhances teaching and learning quality, minimizes distracting classroom behaviors and improves classroom dynamics, engagement, and motivation (Muthmainnah, 2019; Likorish, et al., 2017).

It was a classroom action research that had been conducted in Prep year students at IAU, where students are coming from different places, have no prior knowledge about each other. They have no sufficient confidence in themself and frightened to share their ideas during the class discussion. That's why this research was conducted to improve students' activeness at structure class by sharing their idea, comment, questions, and structure mastery by using slido.com application as the media to teach.

Research Aims

To improve students' activeness at structure class by sharing their idea, comment, questions through Slido.

To improve students' confidence and engagement at structure class by sharing their idea, comment, questions through Slido.
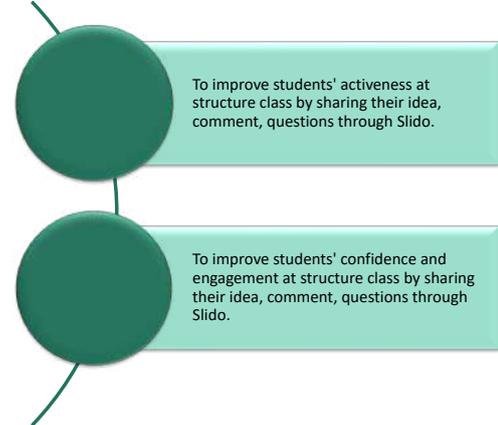
Research Activity

Approach — Mixed Method
- Qualitative & Quantitative)

**Instrument & Data Collection** — Questionnaire, Interviews
- Question Pro

Tools — Descriptive, SPSS
- Mean, S.D,

Outcomes

❖ Teaching and learning by using slido application in the class can improve students' dynamism.

❖ It can be established that slido is superfluously supportive to improve students' activeness, confidence and engagement by sharing their idea, comment, questions in the classroom.

❖ In the end, students were also not hesitantly delivering their question through slido application.
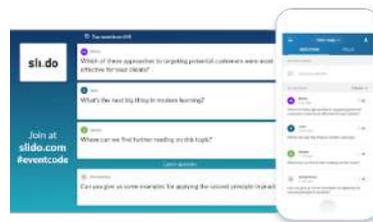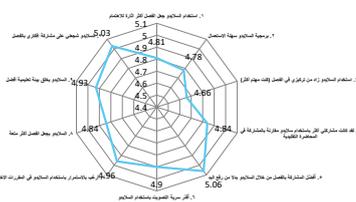

Impact

❖ Improve students' activeness, confidence and engagement

❖ Sharing their idea, comment, questions in the classroom.

❖ Improve students' dynamism.

❖ Decreasing hesitation among students

❖ Teamwork and collaborations
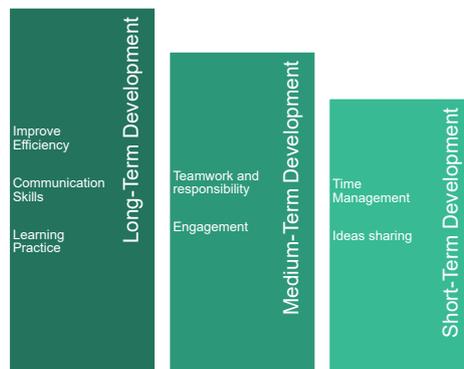
❖ Lifelong learning and responsibility

Activeness Engagement Confidence	Hesitation Fear

Future Development

Long-Term Development
- Improve Efficiency
- Communication Skills
- Learning Practice

Medium-Term Development
- Teamwork and responsibility
- Engagement

Short-Term Development
- Time Management
- Ideas sharing

Student Activness towards Slido

Items	No.	Mean	S.D
استخدام السلايدو جعل الفصل أكثر إثارة للاهتمام .1	33	4.81	0.72
برمجية السلايدو سهلة الاستعمال .2	33	4.78	0.6
إستخدام السلايدو زاد من تركيزي في الفصل (كنت مهتم أكثر) .3	33	4.66	0.64
لقد كانت مشاركتي أكثر باستخدام مقاربة بالمشاركة في المحاضرة التعليمية .4	33	4.84	0.61
أفضل المشاركة بالفصل من خلال السلايدو بدلا من رفع اليد .5	33	5.06	0.42
أقل سرية التصويت باستخدام السلايدو .6	33	4.9	0.67
أرغب بالاستمرار باستخدام السلايدو في المقررات الاخرى .7	33	4.96	0.58
السلايدو يجعل الفصل أكثر متعة .8	33	4.84	0.61
السلايدو يمكن بطريقة تعليمية الفصل .9	33	4.93	0.6
السلايدو شجعني على مشاركة أفكاري بالفصل .10	33	5.03	0.58

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Muthmainnah N (2019) An Effort to Improve Students' Activeness at Structure Class Using Slido App. *J. Eng. Educ. Society*. 4:1. doi: http://doi.org/10.21070/jees.v4i1.1868

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Effect of flipped classroom on students' achievement and time class management

Mohamed Taher HALIMI, Assistant Professor
Community College Dammam

Abstract

This study examined the results of a flipped classroom experiment conducted for five advanced courses in supply chain management program at Community College Dammam (two campuses Dammam and Qatif) in the fall semester of 2019. Nine instructors taught four sections and used the flipped classroom style instead of classic lectures. Post-term surveys were conducted with instructors and students in order to gather information on their views as to the learning environment in a flipped classroom and time management. Additionally, a comparison of the quantitative results of the grades between these sections and those of last year was used to compare the academic outcomes of the two teaching methods.
Views on the flipped classroom were in favour of the new teaching model which is also supported by the improvement in students' achievement, especially with regard to cognitive and communication skills as well as knowledge.
These findings are discussed in terms of how the flipped classroom teaching method needs to be implemented

Research Activity

Introduce the task	Maximize student participation/readiness for the activities

- Introduce the tasks by clearly explaining their expectations for what the students will be doing.
- Explain what they will be doing and why being prepared for the in-class activities

Out-of-class task	Consider the choice of media for the online activities and materials

- Create their own materials such as narrated PowerPoints, …or reuse online content such as websites, readings and videos.
- Include an online means for students to submit questions about difficult concepts or other questions, they can use some class time to discuss these issues.

Assess the learning	Before the in-class session, knowing if the students are adequately prepared for the in-class activity.

- Formative feedback on the assessment questions and an opportunity for students to pose their own questions to the instructor can also be included.
- Evidence of preparation can also be provided through a short assignment or assessment at the beginning of the in-class.

In-class activities	Effective activities for promoting deep learning

- Create opportunities for peer-to-peer learning.
- Linked the activities to course objectives and assessments

Motivation	Student motivation, which underlies the whole learning process

- Activities that are designed to be challenging.
- Find personal meaning and value in the material and see that the course is relevant and linked to their future success.
- Providing frequent feedback to students as they complete their learning can also increase motivation.

Do you believe that the time management with Fipped classroom is improved and class time
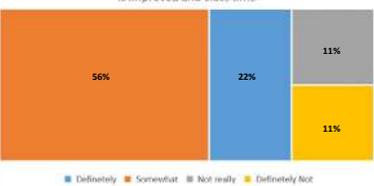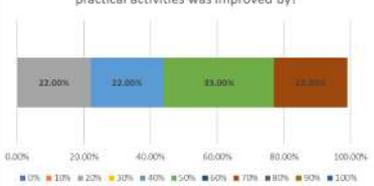

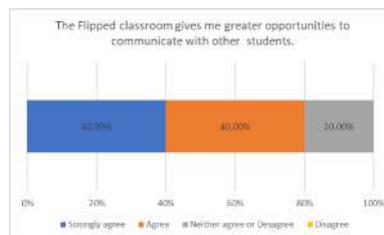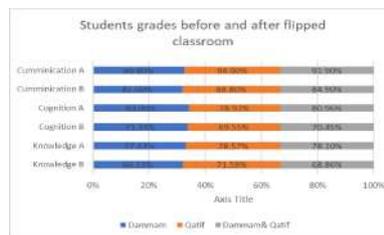Chart How much the time class offered to practical activities was improved by?

Overview

In the traditional teacher-centered model, the teacher is the primary source of information. By contrast, the Flipped Learning model deliberately shifts instruction to a learner- entered approach, where in-class time is dedicated to exploring topics in greater depth and creating rich learning opportunities.
The flipped classroom involves providing instructional resources for students to use outside of class so that class time is freed up for other instructional activities.

For Community College Dammam, feedback from stakeholders and especially employers revealed that cognitive and communication skills are still missing for the majority of graduates. Therefore, the scientific committee of the college suggested an action plan based on flipped classroom application in the majority of level 5 courses.
Two main objectives were the basis of this strategy. The first is to avoid taking up valuable class time for an instructor to introduce a concept often via lecture and use this time for more group discussion, case studies, and practice instead. The second is to improve student's motivation and enhance their engagement by using new active learning strategies.

Students grades before and after flipped classroom

The Flipped classroom gives me greater opportunities to communicate with other students.

Future Developments

1. The use of flipped classroom model with different lecture types.

2. The effect of using flipped classroom on assessment effectiveness.

3. How to design a lecture with the combination of flipped classroom with other strategies.

Outcomes

❶ **Students' achievement**

Figure 1 presents the effect of using flipped classroom and formative assessment on knowledge and cognitive skills. A comparison of relative grades before and after the new model application indicates noticeable increase for three students' skills: knowledge, cognition and communication. Figure 1 shows that the cited skills increased respectively by 9%, 10%, and 7% in both Dammam and Qatif campuses.
These results are in agreement with the majority of student's opinions. In fact, 80% of students either agree or strongly agree the fact that flipped classroom gives them greater opportunities to communicate with other students. On the other hand, students are fully in agreement with the idea that flipped classroom method is more engaging than traditional classroom instruction.

❷ **Time class management**

Time class management was in addition the main reason to apply flipped classroom in the case of Dammam Community College. Feedback from stakeholders and especially teachers showed that learning outcomes should be straightly oriented toward skills and practices, thereby, the improvement of teacher's Time class management is discussed and revised. The scientific committee suggested the use of flipped classroom model to liberate classroom time to more case studies and practices. Results indicate that more than 78% of instructors agree that time management has really improved compared to traditional lecture (Figure 3). To sum up, approximately the liberated time according to instructors' feedback was between 20% and 70% Figure 4.

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Fellowship Program in Learning and Teaching
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Teaching by Doing: Examples and In-Class Exercises

Dr. Jamal Alhiyafi, Associate Professor
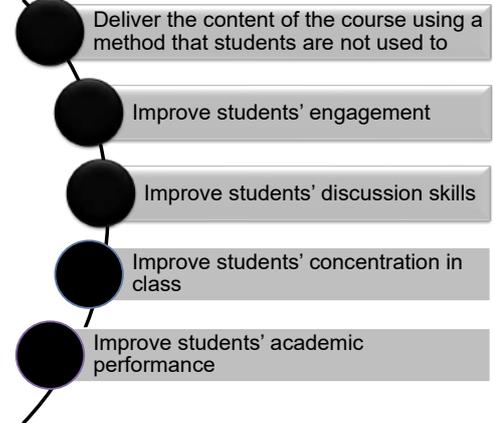**College of Computer Science and Information Technology**

Abstract

The goal of any instructor is to make sure the content of the course is delivered and understood by his students. There are various methods on how an instructor delivers his class and it depends on the nature of the class. Students are used to the classical way of listening to lectures and looking at slides. A new teaching method was practiced with my students by explaining major concepts or definitions via slides and then giving examples and in-class exercises to emphasize the concepts of the course. Students were engaged and active during the entire duration of the class. Students' performance was better than the previous group who took the same class. The more in-class exercises given, the better they understand the content of the course.

Overview

A teaching method is the way the information or content of the course is passed to students. Teaching method varies from one instructor to another and the nature of the course and/or level of students. There are many teaching methods such as Teacher-Centered Approach and Student-Centered Approach. Teacher-Centered Approach is a direct method where students learn via lectures and direct instruction. Student-Centered Approach is an indirect method where students learn via cooperative work or through instructor facilitation [1]. Using a traditional/direct approach doesn't help students concentrate in class. We tried an indirect teaching approach by emphasizing the concepts via examples and in-class exercises. This method is used to make sure students are more focused in the class and more engaged which will result in better academic performance. Other skills will also be improved such as their ability to discuss questions and answers. This method is also known as active learning.

Research Aims

- Deliver the content of the course using a method that students are not used to
- Improve students' engagement
- Improve students' discussion skills
- Improve students' concentration in class
- Improve students' academic performance

Research Activity & Results

Starting Week 2 of the term, a review session was given at each class meeting. Questions were passed to students via a slide, a handout, or written on the board. Students tried to answer the questions individually or via group (when asked to). Then the ideal answer was given and discussed with students. We also discussed the common mistakes that led to the wrong answers of the questions. Students sometimes were discussing their answers among themselves to learn from each other.

A	Students do in-class exercises

- Provide students with examples and in-class exercises that emphasize various concepts of the course

B	Students answer the questions

- Students work individually and in groups to answer the exercises.

C	Answers are discussed in-class

- Answers to the questions are discussed in-class with detail.

Outcomes

Teaching via examples and in-class exercises will benefit students in many ways as mentioned in the 'Research Aims' section. At the beginning, participation was very low, and this was expected. Then students were put on the spot to discuss their answers and they were not used to this method. Later in the class, students started to ask for more questions to be answered by them to confirm their understanding of the course material.

Main content of Outcomes

- Improve students' engagement
- Improve students' concentration
- Improve students' academic performance
- Improve student's discussion skills

Impact

Here are examples of students' feedback on the adopted teaching method [2]:

Student# 1: "The most what I liked about is the exercises which lecturer gave us. I liked that almost every class he would start with some examples for reviewing the lectures before."

Student # 2: "The teaching style was very interesting to follow. The adopted teaching methodologies have really benefited us (in-class exercises, for example)."

Student# 3: One of the positives of this class was giving examples and reviewing content

Student # 4:
من الإيجابيات "تجهيز أسئلة لممارستها ، حيث ان في بعض الدروس حل الأسئلة كان أفضل من الشرح نفسه"
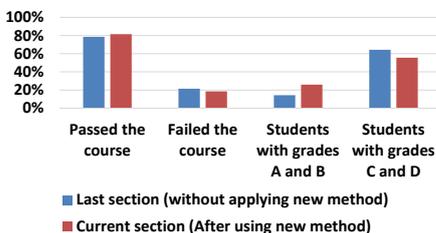
Students Performance

- Last section (without applying new method)
- Current section (After using new method)

Table 1 – Students Performance [3, 4]		
	Before using this method	After using this method
Passed the course	78.57%	81.48%
Failed the course	21.43%	18.52%
Students with grades A & B	14.29%	25.93%
Students with grades C & D	64.29%	55.56%

Future Development

Short-Term Development
- More in-class exercises should be given to build students' confidence on this teaching method and make them get used to it.

Medium-Term Development
- Evaluation of this method needs to be done regularly to make sure it is suitable for students and courses.
- Students' feedback and performance should be recorded and reviewed.

Long-Term Development
- Students should be more independent when going over the course content and when answering various related questions.

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Fellowship Program in Learning and Teaching
Deanship of Academic Development
Imam Abdulrahman Bin Faisal University

Students Engagement in a Flipped Classroom

Maryam Aldossary, Head of Mathematics Department
College of Science

Abstract

As most of our students in the mathematic department at IAU struggle in completing HomeWorks and assignments on their own and fail passing most courses that require more problem solving, we decided to adopt this pedagogy for teaching some courses in the department, My course was one of the nominated courses as it includes more assignments that require problem solving and critical thinking skills, that is in addition to the richness of information related to each topic of the course, which gives students a chance to explore more and practice deep learning on their own pace during class time.

Research Activity

The course was presented through learning modules built on the IAU learning management system (blackboard). The learning material and instructions that directed out class activities were provided and aligned with the lessons objectives. Some checkpoints were added for students to check their understanding . Activities for class engagement were clear and made available along with Students assessment.

- **Mode of delivery**
- **Preparatory activities**
- **In-class activities**

- Video lessons sample problems
- "learning checkpoints" scored for efforts
- Problem solving and critical thinking problems

Impact

- "if you give student the chance to explore things on their own they will amaze you by the new personal perspective that they will share with you". **(course instructor)**

- "I think flipped classrooms are the best way for learning, since it increased the level of activity and participation in the class, it also made the students think about more different problems and exercises, the student were also more responsible and took charge of their own learning journey".**(lab instructor)**

- "in flipped classrooms I learned on my own pace. I also gained the knowledge on how to search the net for the right information".**(student)**

Overview

Flipped learning is a recent emerging pedagogy, that aims for deep engagement of students in learning experiences in presence of the support and guidance from their instructor. In this research we adopt the flipped classroom to increase student's engagement in class for deeper learning as they practice problem solving and critical thinking skills in the presence of the instructor.
In order to evaluate the effectiveness of the proposed approach, we attend to compare the student's engagement in solving problems in the lab class with their peers in other groups taught in traditional way. The experimental group students learned with flipped classroom approach, while the control group students learned with the traditional lecture approach. Observation, survey and discussions with peers and students were other tools used for evaluation of the effectiveness of this strategy.

Outcomes

The main findings of this study indicate that flipped learning can improve students self-efficacy as well as their strategies of planning and using study time, and hence they can learn effectively and have better learning achievements.

➤ **Test Results**
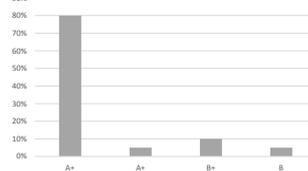
➤ **Survey Results**
- students were highly motivated to learn in flipped classrooms and were committed to watching the video lessons regularly.

- 66.7% of the students experienced an improvement in their math skills, this also resulted in students spending less time working on tradition homework.

- Flipped classrooms increased practice time. Figure.1 shows that the majority of students agree that flipped classrooms more time to practice problem solving in class.(add caption)

View survey results here

Research Objectives

Enhance student's skills in problem solving and critical thinking.

Promote self and continuous learning.

Prompt deep learning.

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Future Developments

As a result of the obtained outcomes we plan to extend the adoption of flipping the classroom for more courses in the mathematics department specially the courses that require more problem solving. As for the current course for this research we plan to flip the whole class next semester.

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Comparison between the Influence of Learning Methods

Fatemah Alghamedy, Assistant Prof.

Community College

Abstract

In this action research, a class activity was conducted to compare the benefit\impact of different types of learning methods.

Overview

A class activity was conducted with two different classes (sections) to compare the benefit between the peer-learning and feedback.

Research Activity

Learning Invention

Four questions such that one of them is under Knowledge (Q1) and the other are under Cognitive with three different levels of difficulty (Q2: Medium; Q3: Low; Q4: High)

Applications

Students solved the same problems four times:
1. Individually.
2. With a group that they chose.
3. With a group that they did not choose.
4. After feedback is given from the instructor.
   - Groups were allowed to ask three questions.

Analysis Tool

Comparison
- Between the four answers for each student.
- Between two sections (classes).

Research Aims

- Explore the benefit\impact of different type of learning resources.
- Study the influence of the peers on the learning procedures.
- Measure the influence of the students' questions in developing the teaching methods.

Q1 - KNOWLEDGE

(Legend: Wrong, Correct, Missing)

	INDIVIDUAL	GROUP	VISITED GROUP	FEEDBACK
Correct	23	27	32	33
Wrong	25	21	16	8
Missing				8
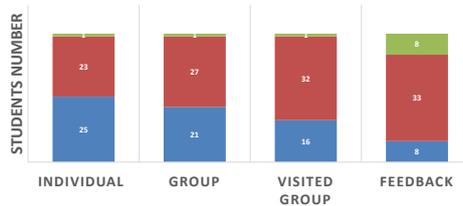
Q2 - COGNITIVE (DIFFICULT = MEDIUM)

	INDIVIDUAL	GROUP	VISITED GROUP	FEEDBACK
Missing	2			
Correct	6	11	12	33
Wrong	41	37	36	15

Q3 - COGNITIVE (DIFFICULT = LOW)

	INDIVIDUAL	GROUP	VISITED GROUP	FEEDBACK
Missing	3			
Correct	17	23	26	37
Wrong	29	26	22	11
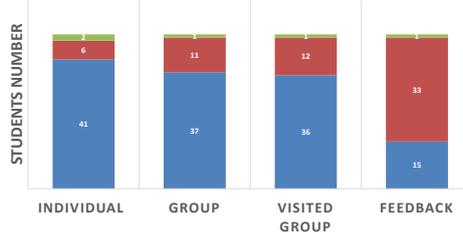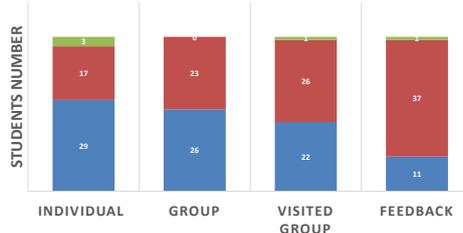
Q4 - COGNITIVE (DIFFICULT = HIGH)

	INDIVIDUAL	GROUP	VISITED GROUP	FEEDBACK
Missing	5	9		
Correct	3	6		9
Wrong	41	34	48	39

FIRST CLASS (INDIVIDUAL)

- Missing 4%
- Correct 24%
- Wrong 72%
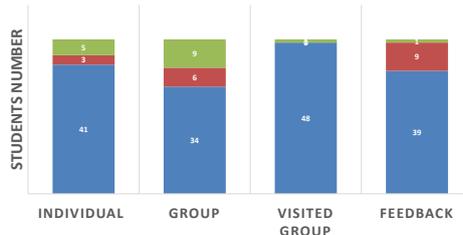
SECOND CLASS (INDIVIDUAL)

- Missing 8%
- Correct 26%
- Wrong 66%

References

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Outcomes

- The best results are after the feedback is given to the students which prove that the feedback is one of the most important resources to learn.
- As shown in the high difficult question (Q4), the influence of the peer that knew each other closely is stronger than the other.
- The answers that have been done individually are the worst.
- The second class students answered the questions individually better than the first one.

Impact

1. Even though peer-learning is one of the learning resources for students, sometimes has a negative impact on the students that understood the subject but they either not very confident in themselves or their peers have the power of persuasion.
2. The time of the class activities should be calculated accurately in order to get the benefit of the activities without wasting the class time.
3. Most of the students were not able to ask correct questions that reflect their inquiries.
4. Students' questions help to develop the presentation of the content for the next class to fit the students' background knowledge.

Provide multiple methods to understand | Time consuming
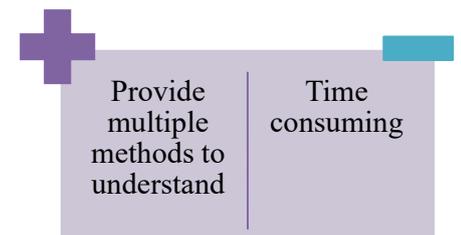
Future Development

- **Short-Term:** Give student feedback consistently. Managing the activity time.
- **Medium-Term:** Maintain students' questions for each course to help develop the content of the course.
- **Long-Term:** Develop the peer-learning method to limit the negative impact and boost the benefit

Using video in teaching/learning English

Dr. Sami Al-Mubireek, Assistant Professor
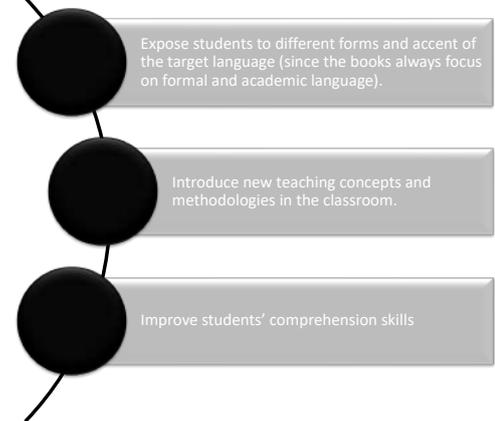**Deanship of Preparatory Year & Supporting Studies**

Abstract

This poster summarizes the use of English video clips in teaching/learning the English language. These videos provide authentic material which allow students to understand how English is used in everyday situations. By using videos in the classroom, teachers will able to create many activities from a single video clip (vocabulary, grammar, speaking and writing) and, therefore, expose students more to the language. In addition, students will be engaged more in the classroom and more motivated/interested to learn.

Overview

The use of English movies, TV series, documentaries and other videos has been considered as a useful pedagogical tool in second language acquisition for a very long time (Stoller, 1988; Champoux, 1999; Baratta and Jones, 2009; Kabooha, 2016). They provide learners with authentic material which allows them to understand how English is used in everyday situations, something which texts often fail to provide (Gebhard 1996: 89-109). Students are often able to pick up certain phrases or expressions that they could actually use in an English-speaking environment. Furthermore, Stoller (1988) found that the use of videos in the classroom help teachers to be creative in the classroom. They are able to extract many activities from a single video clip (vocabulary, grammar, speaking and writing). Therefore, to give students at Imam Abdulrahman Bin Faisal University a greater exposure to the language, some lessons which involved the use of videos were introduced.

Research Aims

- Expose students to different forms and accent of the target language (since the books always focus on formal and academic language).
- Introduce new teaching concepts and methodologies in the classroom.
- Improve students' comprehension skills

Research Activity

To test this new concept, a series of activities (see appendix A) were designed for intermediate level students. All these activities were based on the units taught in the Q Skills Books. Below is a description of lesson 1:

Lesson aims: By the end of the lesson, students will be able to:
- .....use imperative verb.
- ....take part in role play

Source of materials/resources:
- Video clip
- Worksheet (see appendix B)

Lesson stages:
- Introduce vocabulary needed to watch the clip.
- Watch the clip and answer the comprehension questions.
- Complete the movie script using the imperative verb.
- Do a role a play using the imperative verb.

Outcomes

The students really enjoyed the lesson and were fully engaged, even the weaker students. The audiovisual activities offered weaker students another channel of understanding in addition to just listening to the language which helped them to complete activities. In terms of language development, the movie clip allowed students to practice not only listening, but also speaking, writing and grammar. It also aroused feelings and opinions which helped in follow on activities. Below is a recording of one of the follow-on activity.

https://www.youtube.com/watch?v=j_KVidJCqGk&list=PLOz9Ccv9XZO_p2p45SAIqYUBDcqkKfkx_&index=12

Impact

An important lesson learnt from this is that video clips brings back excitement in the classroom as it makes lessons less predictable. In addition, it helps in getting more engagement of the students. Furthermore, having a dependency on textbooks is something which can be detrimental to students' needs. Going page by page can lead to students losing motivation and having no enthusiasm.

Visual Support
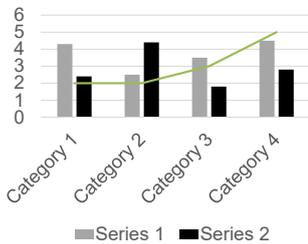
Table 1 - Title			
8.01	7.99	5.77	6.44
4.50	3.11	9.55	1.12
6.15	8.00	6.18	5.65
8.21	2.16	3.11*	7.17
3.00	9.70	10.50	4.45

Future Development

Creating lessons based on videos is time consuming. It requires searching for videos, watching them to make sure they are culturally appropriate, editing them and then devising a lesson based on the video. It can take hours to just design one lesson plan. Therefore, a collaborative effort is needed to make this project work.

The first thing that needs to be done is to assemble a dedicated team of teachers to manage this. They will be responsible for finding videos and creating lesson plans based on the current syllabus. They will go book by book and come up with one lesson for each unit taught in Q Skills.

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Using "Rubric" for Assessment and Feedback: Action Research

Rabab Mousa, Vice Dean for Academic Affairs

College of Sciences and Humanities - Jubail
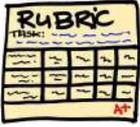
Abstract

This Action research aimed to provide students with online rubric to grade assignments and, to give students immediate feedback. The action was using Blackboard tool "Rubric" to reach the goals. The intervention has a positive impact for me as an instructor, students, and the institution. The impact including but not limited to: grading criteria were clear and we went paperless. Future development includes familiarize college faculty with this tool and encourage them to use it in their classes.

Overview

According to research and educators' reports, assessment and feedback are vital elements in the learning process (Khamis & Selamat. 2019). However, providing detailed feedback is a long process mainly with large classes. Additionally, instructors are required to grade coursework and all assignments based on rubrics to guarantee fairness and equity. In order to achieve all these goals, I use Blackboard tools "Rubric".

Research Objectives

- Saving time of grading assignments.
- Giving the ability to provide specific feedback on a specific item.
- Providing students with detailed grades and feedback.
- Availability of grades and feedback for students all semester long.
- Easing communication between instructor and students in terms of discussing assignments.

Research Activity

To use Blackboard tool "Rubrics" in "Design and Develop Math Lessons" class for assessment and feedback I do the following:

1. First, I transfer all assignments standards into rubrics. Each rubric contains criteria, performance rating, and performance description. Also, grades and percentage are distributed on rubrics to inform students about the weight for each criterion.
2. Second, I post rubric with assignment, so that students know about the quality measurements for assignments.
3. Third, after submitting due date, I grade all assignments and write the feedback on blackboard where grades are posted immediately and privately. Blackboard allows students to communicate with the instructor, which opens the door for students to dialogue with instructor in case they needed to do so.

Outcomes

Using "Rubric" is a benefit to students, instructor, and the college.

1. For students, 1) grading criteria are clear, 2) feedback can be provided in detail, and 3) the need to print papers is vanished.
2. For me as instructor, 1) all students work was safe and paperless, 2) I was able to grade my students on the go, 3) I provided detailed feedback when needed on specific criteria and on whole assignment in general, and 4) it save my time and energy.
3. For the college, 1) the admin was able to track my students' work, 2) the institution was able to take a look on the rubric, and 3) minimize the number of mistakes in grading.
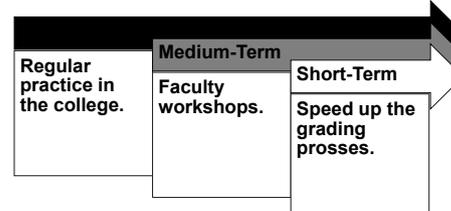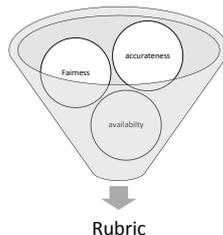
Impact

❶ The use of "Rubric" took me to the next level of professionalism. Dealing with students in transparency and limpidity. Students now focused on quality of their assignments. We have gone paperless, which add to university sustainability goal. This section may include lessons learned at a personal, professional, team and/or institutional level: think of resources, knowledge, time, etc.
❷ %100 of students in the class believed "Rubric" helped them doing better job in their assignments.
❸ One students commented "now I know what to concentrate on when doing the assignment"

Future Developments

❶ I would like to take this project to several levels beyond this. I would like to conduct several workshops in my college to share my experience with other instructors, and to teach them how to add a rubric to assignments.
❷ As a vice dean for academic affair, I would like to encourage faculty members to adopt these tools and use the university resources for better and advanced technology integration in instruction.

References

Khamis, S., & Selamat, A. (2019). The Use of Feedback in the Classroom Assessment: A Case Study. International Journal of Academic Research in Progressive Education and Development, 8(3), 325–334.

accurateness

Fairness

availability

Rubric

Regular practice in the college.

Medium-Term

Faculty workshops.

Short-Term

Speed up the grading prosses.

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Priorities in Teaching Improvement

Dr. Naof Faiz Al-Ansary, Assistant Professor
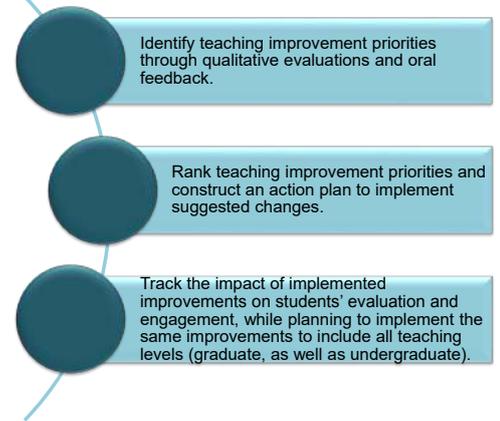**College of Public Health**

Abstract

In order to prioritize teaching improvement efforts, a comprehensive scan of student evaluations over the past year was conducted. After revision of student input and feedback over the past two semesters, it was realized that most comments, whether orally or written, revolved around three overarching themes. A group of graduate students were selected as a study sample for the purpose of this research because they are familiar with my teaching style due to the fact that I have been teaching them for over a year now. The study sample (n=7) were asked to rank three teaching improvement priorities from highest priority to lowest priority. After taking the priorities into consideration and implementing the suggested changes, students reflected improved levels of engagement and involvement in the teaching/learning process.

Overview

Teachers are often compelled to find teaching improvement opportunities, and there is no better opportunity to do so than while teaching graduate courses. Graduate level teaching is characterized by the presence of more constructive criticism, because of the unique nature of teacher/student relationship. Moreover, the difference in assignment structure and lecture delivery allows for more room to maneuver and accommodate the specific needs of students. As a result, oral and written observations were analyzed and teaching improvement priorities were established and implemented. This particular batch was chosen as a study sample because of their exposure to my pre- and post-teaching improvement project.

Research Aims

- Identify teaching improvement priorities through qualitative evaluations and oral feedback.

- Rank teaching improvement priorities and construct an action plan to implement suggested changes.

- Track the impact of implemented improvements on students' evaluation and engagement, while planning to implement the same improvements to include all teaching levels (graduate, as well as undergraduate).

Research Activity

Evaluation Analysis

- Collect and analyze qualitative evaluations from students regarding the main gaps in their learning process that are relevant to the instructor's delivery and classroom management style.

Prioritization of Efforts

- Students are asked to rank the three main teaching improvement efforts from highest priority to lowest priority.

Implementation and Re-evaluation

- The highest ranking teaching improvement has been implemented, and the other two efforts that scored medium to low priority are in the process of implementation throughout this semester. Qualitative re-evaluation in terms of the impact of implementing the first priority towards the end of last semester has been collected and an action plan has been generated to ensure its implementation across the rest of courses being taught this semester.

Outcomes

The main outcome for students was lower levels of anxiety in terms of what to expect on exams, as well as feelings of confidence and appreciation that their input matters and their feedback is taken into consideration. This resulted in enthusiasm and increased feelings of engagement and involvement in course delivery.
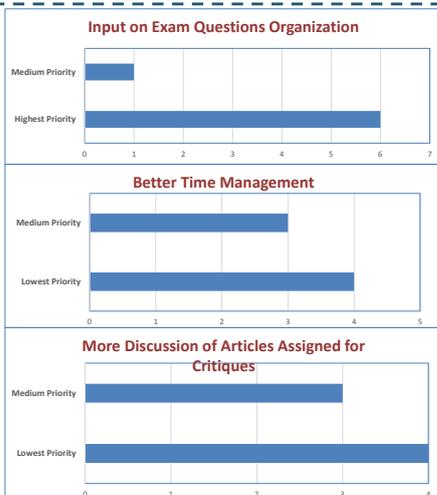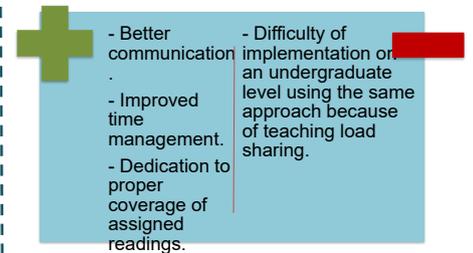
Main Outcomes

- Positive feedback upon re-evaluation
- Increased levels of engagement and mutual trust
- Confidence in the effectiveness of the evaluation process
- Qualitative evaluation
- Resulting from implementation of suggested teaching improvement efforts
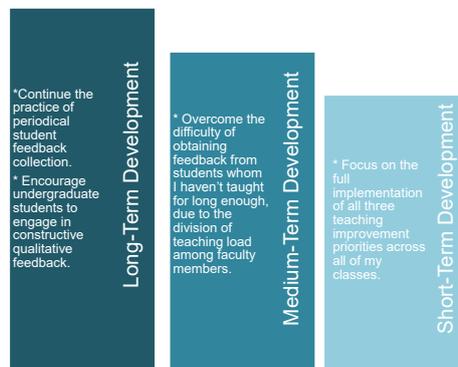- Evident through the action plan

Impact

This research resulted in a positive impact on the teaching/learning process. This can be seen clearly through students' feedback. For instance, one student commented that "in the first semester I had trouble understanding grade distribution and the organization of exam questions, but now it is much better."

I learned from this research the importance or re-evaluating myself in terms of communication with the students, openness to change, and time management skills.

- Better communication.
- Improved time management.
- Dedication to proper coverage of assigned readings.

- Difficulty of implementation on an undergraduate level using the same approach because of teaching load sharing.

Future Development

Long-Term Development
*Continue the practice of periodical student feedback collection.
* Encourage undergraduate students to engage in constructive qualitative feedback.

Medium-Term Development
* Overcome the difficulty of obtaining feedback from students whom I haven't taught for long enough, due to the division of teaching load among faculty members.

Short-Term Development
* Focus on the full implementation of all three teaching improvement priorities across all of my classes.

References

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Input on Exam Questions Organization

Medium Priority
Highest Priority

0 1 2 3 4 5 6 7

Better Time Management

Medium Priority
Lowest Priority

0 1 2 3 4 5

More Discussion of Articles Assigned for Critiques

Medium Priority
Lowest Priority

0 1 2 3 4

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Impact of Peer Editing on Improving The Writing Skills of Students

Dr. Eman Alkroud, IAU University

Abstract

It has been noticed that students keep making the same mistakes in writing over and over again. So, peer editing method was introduced and its impact upon the development of the students' writing skills was assessed. The research targeted 45 students. The results have shown that students have made a remarkable progress in writing and there have been less grammatical and stylistic mistakes.

Overview

After experimenting with many teaching methods, students' level in writing didn't show much improvements. Students kept making the same common mistakes in writing such as subject-verb agreement, punctuation and other stylistic issues. As a result, I incorporated peer editing method along with other teaching methods.

Research Aims

1- To have students recognize the most common mistakes in writing.

2- To have students practice editing skills.

3- To have students improve their writing skills.

Research Activity

- The students were divided into groups.
- each group was given a piece of writing written by one of their classmates and was asked to edit it.
- The written work was presented on the projector and the students were asked to come to the front of the class and point out the errors.
- The students were asked to summarize what common mistakes they had recognized and come up with a list of them.
- The students made suggestions for improvement.

Outcomes

The Outcomes were encouraging.

- The Students were enthusiastic and the classroom environment was interactive and engaging.
- The students were able to identify the common mistakes in writing.
- The mistakes in students' writings decreased dramatically.

Impact

- Peer Editing has benefited writer students by providing them with important and thoughtful feedback.
- It has benefited editor students by giving them a chance to improve their editing skills.

Students' Progress

- dramatic
- slight
- no progress

Future Development

Long-Term Development: Sharpen students editing skills and prepare them to be future editors.

Medium-Term Development: Provide students with critiquing skills.

Short-Term Development: Have students develop their own rubric.

References

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Afsar Rouhi and Elnaz Azizian, Peer review: Is Giving Corrective Feedback Better than Receiving it in L2 Writing?, Procedia - Social and Behavioral Sciences, 10.1016/j.sbspro.2013.10.042, 93, (1349-1354), (2013).
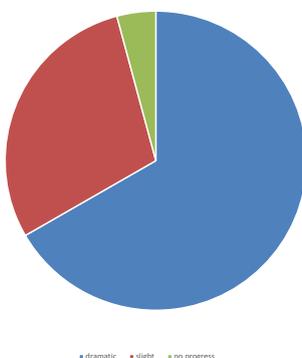
Group Practice Model for Senior Dental Students

Mishali AlSharief, BDS, CAGS, MSD, DScD
Assistant Professor, College of Dentistry

Abstract

The goal of the Group Practice Model is to ensure commitment to providing a clinical learning environment that is patient-centered, rather than procedure-oriented, providing students a sufficient number and breadth of clinical experience to attain and demonstrate competence as a general dentist.

The most important responsibility of dental students in the GPM is that they deliver quality comprehensive dental treatment appropriate to each patient, in a timely manner. Every patient's oral health needs, personal preferences, and social, ethnic, economic, and emotional circumstances must be sensitively considered. This model was implemented in 2019 and the graduating class of 2020 will be the first to have undergone the pilot.

Overview

In their final (6th) year of study, dental students undergo a clinical comprehensive course in which they incorporate 9 different dental specialties in form of comprehensive cases.. With each specialty requiring a certain number of procedures to be completed, students are often subjected to enormous pressure towards the end of the year. Patient surveys reveal that once a student has completed a certain requirement they lose priority and are often neglected for further care or completion of care. We have introduced the Group Practice Model, which aims to assign students into groups with a group manager and group leader. This model aims to shift the focus from requirement oriented care to comprehensive patient care. This would translate into an increase in production, a decrease in patient dissatisfaction as well as student anxiety.

Research Aims

1. Increase Student Productivity	This model enables constant monitoring with assessment incorporating both quantity and quality.
2. Increase Patient Satisfaction and Reduce Student Stress	By shifting the focus from requirements to patient centered care, patient needs will be addressed completely regardless of their priority as student requirements.
3. Establish Vertical Integration & Peer Learning	By assigning 5th year students to senior partners in small groups, each student can compare their progress within their group and class. Students can share cases and collaborate to improve their groups overall standing as well as learn from their seniors.

Research Activity

Learning Invention	Group Practice Model
Applications	• Vertical Integration + Peer learning
Analysis Tool	• Progress Monitoring + Surveys

Outcomes

Positive initial reaction from students V.S Skeptical initial reaction from faculty
45% reduction in patient complaints compared to pre-implementation year
88% of students reported satisfied compared to 75% pre-implementation year.

Impact

❶ Overall, both students' and patients' feedback was positive.

❷ Student production and academic performance improved especially 5th year students who seem to benefit from peer learning by being grouped with senior 6th year students.

❸ Challenges included resistance to change from some faculty, as well as time spent orienting both students and faculty to the newly introduced model.
"I can ask my partner questions I would otherwise feel ashamed of asking my faculty" 5th year student

Future Development

Short-Term

Conduct Pre and post survey analysis for first class graduating with Group Practice Model and their patients and update performance statistics by the end of the year.

Medium-Term

Implement constructive feedback to improve model and incorporate model to include 4th year dental students.

Long-Term

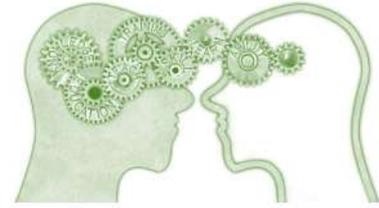Implement change to include the entire dental school curriculum.

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Skill Swap Activity

Saleh I. Alzahrani, Assistant Professor
College of Engineering

Abstract

Skill swap activity aims to support students to recognize their own skills and strengths and those of others. In addition, it aims to help students to use their strengths and skills to support others. This activity is mainly targeting students who have expertise in a particular area or looking to gain tips and tricks in a different area.

Skill swap activity is a great opportunity for the students to share a skill or teach it to others who want to learn how to do what he/she can do or be better at that specific skill. Or maybe he/she needs help with something and rather than spending hours researching and trying to learn it on his/her own, he/she can connect with someone who is really good at it and can show him/her how to do what he/she needs (using Illustrator or MATLAB, for example).

Overview

"If you want to learn something, read about it. If you want to understand something, write about it. If you want to master something, teach it." Yogi Bhajan

Cooperative learning is a well-established technique for enhancing learning.

Research suggests that students who engage in an environment of open and free communication, study well and perform better academically.

A study published in the academic journal *Memory & Cognition* concluded that students who taught other' performed better on tests than those who were told they would be tested.

Research Aims

1 Create a positive group atmosphere and break down social barriers.

2 Build in-class opportunities for students to learn from each other.

3 Promoting active learning through direct interaction between students.

Research Activity

This activity is about 2 hours long. A checklist was created and sent to the students to select the skill(s) they are willing to teach to others and the skill(s) they want to learn.

Based on the questionnaire, 10 skills were selected.

41 students participated.

Outcomes

Does this activity help you in your SDP?

- Yes
- No
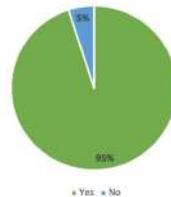
Impact

This activity had a positive impact on the participants, both learners and teachers. Here are some quotes from the students:

Student A: "This was an exciting way to share and learn skills with my classmates. It was a well-organized and beneficial learning experience."

Student B: "This activity was awesome! It will help me in my senior design project."

Student C: "I learned more information from this activity in a short time."

Student D: "Skill Swap activity allowed me to hone my skills and grow a deeper understanding of the topics I taught."
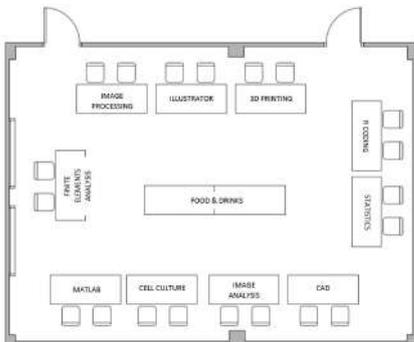

Future Development

'Skill Swap' app can be used to allows IAU students to build their own profiles, find a partner from whom they can learn or to whom they can offer help, and stay informed of on-campus events that are of their interests. In addition, this app encourages students to share skills, minimize training costs, and build social network.

Skill Swap App
Explore Your Interests and Share Your Skills

References

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Kunsch, C., Jitendra, A., & Sood, S. (2007). The effects of peer-mediated instruction in mathematics for students with learning problems: A research synthesis. Learning Disabilities Research & Practice, 22(1), 1-12.

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Action research
Drawing stronger connection between User Experience concepts and Graphic Design practice

Mariam Abdulrahman AlGhamdi, Lecturer
College of Design, Department of Graphic Design & Multimedia

Abstract

The user experience design course is introduced to graphic design students in their third year. Because of the nature of this theoretical course, students sometimes miss out on the connection between its theory and graphic design.

This action research aim was getting the students to move from passive to active learning. It used flipped classroom techniques to engage students by presenting examples of UX concepts applications in GD by providing the theory ahead then asking them to research, analyse and share their understanding in class through practice examples.

As a result, the students drew a stronger connection between user experience concepts and graphic design. This result concluded after reviewing their responses to the survey.

Research Activity

This research was done using a flipped learning technique by providing students with the theories ahead, then asking them to present a practice example to their classmates.

The brief asked the students to work in groups of two to prepare a 2-min presentation reflecting their understanding of UX applications in GD.

This intervention was done over a month allowing students to receive the knowledge and then reflect on it

A survey was given to students before the intervention to indicate their response. A similar one was given later to compare and analyse the effectiveness of this technique.

Impact

Nowadays, user experience concepts are becoming even more urgent to learn by designers. It is also one of the most paid jobs in the market. Saying that, I thought students would immediately draw the connection between its theories and graphic design. However, this was not the case. Working on this research has taught me to listen carefully to students and continuously check with them to participate in class activities to make sure they are applying the learning outcomes and seeing the value of theory in their practice.

Future Development

Develop a second version of the survey to be given to students by the end of this course

Invite guest speakers from GD background who are applying UX theories in their practice to draw a more realistic connection

Attend workshops and UX conferences to keep the course content up to date

Objectives

- Move students from passive to active learning.
- Improve students understanding of user experience design, and it is relationship with graphic design.

Overview

Although the lectures of this course draw enough connection between its concepts and graphic design, students of 2019 didn't see it as evidence and responded with "this shouldn't be part of GD" in the course evaluation. So, as we unfolded the 2020 course, I decided to use a flipped classroom technique to ensure knowledge communication to students in a better form. Students were asked to prepare a 2-min example of their understanding of UX relationship to GD. A class discussion then followed the presentations. The intervention happened over a month with different groups presenting in different classes.

Outcomes

1 **Students described UX concepts with more advance understating.**
Their descriptions before the intervention included words like Adobe XD, User flow, Web design. Their description after the intervention included words like Interaction- make it easy - solve problems.

2 **Students understanding of UX application in GD has improved.**
When asked to provide an example, most of their answers before the intervention talked about web design. After the intervention, their answers got more varieties such as app design, retail experience and packaging.

3 **Students realization of UX theories applications in GD has improved.**
When asked if they have seen the concepts often align; before the intervention, only %59 answered yes, but after %88 agreed.

%36.4
%59.1

%8
%88

● yes
○ no
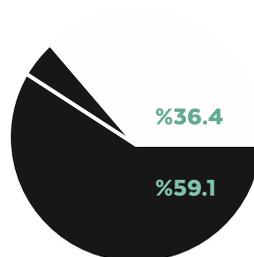
Students responses *before*
the intervention
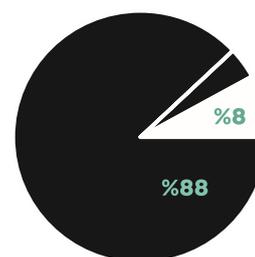
Students responses *after*
the intervention

References

Bergmann, J. and Sams, A. (2012) Flip Your Classroom: Reach Every Student in Every Class Every Day. International Society for Technology in Education.

Learning Invention

Applicat - ions

Analysis Tool

Promoting Confidence and Performance in Solving Thermodynamic Problems through Jigsaw Technique

Zainab H. A. Alsunaidi, Assistant professor in Physical Chemistry
Chemistry Department, College of Science, IAU
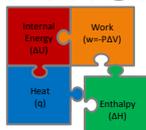
Abstract

In order to build confidence, and improve test performance of my students in the chemical thermodynamic class, several teaching-learning practices have been used, such as interactive lectures, video tutorials, and cooperative learning; Jigsaw method in particular. The best performance and reflection came from using the Jigsaw method. Being an expert in a topic and responsible to share your knowledge to your group as well as linking the information puzzles together, all of which helped students to acquire a strong confidence in their cognitive communication which appeared in their test scores.

Overview

Thermodynamic chemistry class has been known among chemistry major students as a very difficult class due to large amount of laws, equations, and terms requiring plenty use of mathematical methods. I asked my students about the best teaching technique that enhance their learning of this subject. 50% of the students believe that group work is their best teaching-learning process. Thus, cooperative and peer teaching methods have been applied to my class.

Research Objectives

Students interact with each other to discuss the concept and become expert.
- Use cooperative learning

Students are responsible for self-learning and their group-learning.
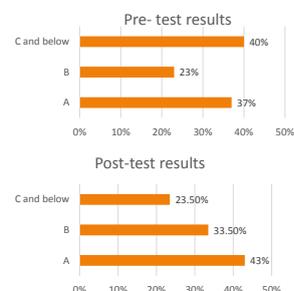- Assign responsibilities

Students share their knowledge and teach it to each other.
- Promote peer teaching

Research Activity

Cooperative and collaborative learning; student-centered classroom; Jigsaw technique

The Jigsaw technique requires 2 groups, the home group and the expert group.

I started with dividing the 35 students into 8 home groups with 4 to 5 students in each one.

Home Group → Expert Group → Home Group

- Each student then was assigned a number from 1 to 4 in each group.
- Each number represents a sub-topic to learn (includes concept, equations, problem and solution steps).
- Next, students with the same number created their own expert group.
- In the expert group, students explained and taught each other the sub-topic they have. Students should master their piece and become an expert in it.
- After they had finished, they were put back into their home groups where they taught each other about their sub-topic and ensure all their home group members understand the materials.
- Finally, I asked the students to link between their sub-topics in their home groups and see the bigger picture of the topic.
- The instructor acted as a facilitator for any question or explanation.

- Tests
- Ed tech.
- Survey
- Student comments

Expert Groups

Home Groups

The main topic: The First Law of Thermodynamic
$$\Delta U = q + w$$
$$\Delta H = \Delta U + P \Delta V$$

1 Internal Energy (ΔU)	2 Work (w=-PΔV)
3 Heat (q)	4 Enthalpy (ΔH)
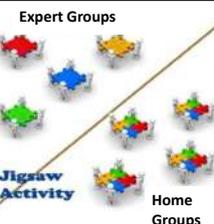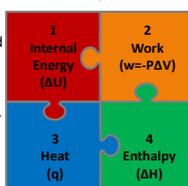
Example of a sub-topic sheet for expert group # 2

Impact

- The Students felt happy and satisfied of the Jigsaw method.
- The Students showed better performance in the post-test.
- The practice helped the students to develop their critical thinking, social skills and problem-solving skills.
- The students were confident when doing an online test after the activity.

Cooperative learning (Jigsaw method) helped me understand and learn how to solve thermodynamic problems?

5.26% 5.26% 0.00%
42.11%
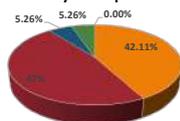
- Strongly agree
- Agree
- Undecided
- Disagree
- Strongly disagree

Future Developments

Short term
- Expand the application to the second law of thermodynamic and create expert groups in these topics.

Medium term
- Track the progress of the students' performance and reflect on the result.

Future term
- Balancing between student-centered class and teacher-centered class and apply the Jigsaw technique in the other physical chemistry courses in higher levels in the program.

Outcomes

Expected outcomes (achieved):
- Boosted student's confidence when solving chemical thermodynamic problems.
- Improved the performance of the students in the tests.
- Enhanced students' responsibility and accountability for self-learning and for teaching others.
- Developed a spirit of cooperation between the students through teamwork.

Pre- test results

C and below	40%
B	23%
A	37%

Post-test results

C and below	23.50%
B	33.50%
A	43%

Unexpected outcomes (achieved):
- Created a very positive learning environment in which students felt proud and interested.

References

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2. Doymus, K. (2008), Teaching Chemical Equilibrium with the Jigsaw Technique. Research in Sci Edu, 38: 249-260.
3. Oliveira, B.R.M., Vailati, A.L., Luiz, E., Boll, F.G., Mendes, S.R. (2019), Jigsaw: Using Cooperative Learning in Teaching Organic Functions. J Chem Educ, 96: 1515-1518.

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Abstract

Questions are the simplest interactive form of teaching and an integral part of meaningful learning. Enabling questions via educational technologies allows us to flip the teacher-student roles in class, stimulate active learning and gauge students' level of leading the class discussion and learning. I used Slido to facilitate Graduation Project lectures and realized that there are many inspiring ways to use it to let students lead and share their thoughts. In fact, Students' questions and discussions covered the planned academic objectives.

Overview

Questions are the simplest interactive form of teaching and an integral part of meaningful learning. Enabling questions via educational technologies allows us to flip the teacher-student roles in class, stimulate active learning and gauge students' level of leading the class discussion and learning. I used Slido to facilitate Graduation Project lectures and realized that there are many inspiring ways to use it to let students lead and share their thoughts. Actually, Students' questions and discussions covered the planned academic objectives.

Literature Review

- Previous research on tutoring sessions found that students tend to ask few questions during class (Graesser and Person, 1994).This mainly occurs since students do not like to draw attention to themselves

- Empowering students to ask top quality questions anonymously using technology will remove the fear of asking questions, and will increase students participation and engagement.

Students' Feedback

- It's gives students a chance to ask questions no matter how simple or difficult it is in which allows them to feel very comfortable in class and it's makes the interaction between the instructor and students very easy and smooth.

- Answering many different and common questions in few minutes, tells us how helpful the app is.

- The app mainly needs a good wifi connection and unfortunately the Wi-Fi may get really slow and the students won't get the whole benefits of the experience.

- Using new techniques and activities to encourage students to share their thoughts and ideas freely and with passion.

Outcomes

- Improved students' attention.

- Stimulated active learning and student engagement.

- Increased quality of questions asked by students.

- Allowed students to lead the class and discussion.

How I used Slido?

- Students ask questions.

- View other students' questions.

- Students vote for questions they like (upvote or downvote).

- Questions are prioritized according to students' votes.

- Students lead discussion to achieve module learning objective.

References

- Arthur C. Graesser and Natalie K. Person, American Educational Research Journal Spring 1994, Vol. 31, No. I, pp. 104137-

- Good, T. L., Slavings, R. L., Harel, K. H., & Emerson, H. (1987). Student passivity: A study of question asking in K–12 classrooms. Sociology of Education, 60(3), 181–199

Effect of a remedial program on low achiever students in Mid-Semester I exam for Biology offered for 1st year health track at the Deanship of Preparatory Year and Supporting Studies 2019/2020

Dr. Naif AlQurashi
Assistant Prof. of Molecular Biology

Problem:
• Underachievement by 19 first- year health track students.

Action:
• Raise students' achievement by designing and implementing a remedial plan.
• Plan was optional for the targeted category to pilot its effects before making it compulsory for all underachiever in the next academic year

Target:
• 19 underachievers students over 81
• 9 attended

Strategy:
• Identify students who did not pass the exam
• Course outcomes that were not met by the students were identified
• Students were advised to attend at least 3 remedial sessions with their course facilitators
• Students who attend 3 sessions or more were eligible to undertake a short quiz
• Pre & post remedial results were analyzed

Outcomes / Impacts
• 47% of targeted students passed the quiz
• Overall percentage of failed students decreased from 23% to 16%

Results of Test 1 "Health track- Al-Jubail female students" before and after the remedial program
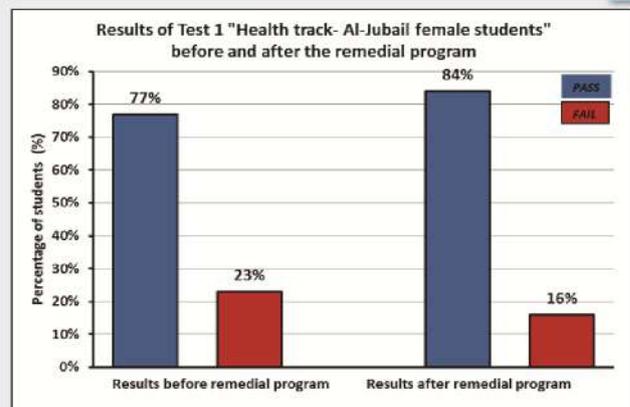
Future action:
• Survey students on their experience and perceptions on the remedial plan
• Share the benefits and results of the remedial plan with all courses in the department to address underachievement in other courses
• Make the plan compulsory to all underachievers

References:
• Basic Sciences Department's exam results (2018/2019), Deanship of Preparatory Year and Supporting studies – Imam Abdulrahman Bin Faisal University

# Effect of Gaming On Course Learning Objectives

Dr. Mai Shukri, Assistant Professor

College Of Design

COLLEGE OF DESIGN

Abstract

This study is part of an action research project that aims at investigating the impact of Gaming on students gaining course learning Objectives (CLO). A group of 40 students participated in the learning activity through the Khaoot, game based learning platform used in educational technology. Observation of student participation rate in the game and collection of students formative Quiz' scores as well as students feedback given from the use of the Khaoot and Student Evaluations were used as primary sources of data for the current study. Findings include an increase in number of participants and retention of CLO in the group involved. In addition, positive feedback was given in the Kahoot Feedback survey and Student Evaluations.

Research Activity

The game consisted of twenty question that was aided by videos and images to reflect on the lesson given previously. The student logged on to Kahoot.it and entered the game pin. The instructor read the questions out loud and gave the students 120 seconds to answer each question.
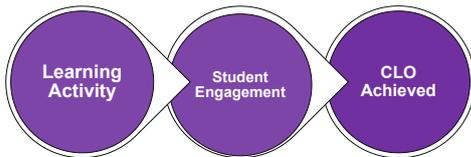
Learning Activity
- Game based learning Activity "Khaoot"

Student Engagement
- Reflective learning Cycle
- Student participation
- Cooperative learning

CLO Achieved
- Game Feed back
- Formative quiz
- CES / SSLS Evaluations

Overview

The need for the intervention was due to a lack of engagement and participation from students in the course. This lack of participation has negative effects on learning and teaching and intended learning outcomes. Game based learning platforms have been known to positively influence the participation, concentration, motivation, and enjoyment of student learning.

The current sample of this study is a Section one of the class of 40 Interior Design Students at the College of Design, IAU in the Materials Application Course given at the 3rd level of the study Plan Semester one of the 2019/2020 academic year.

Outcomes

❶ 88% Participation 40 students 35 students participated.

❷ 77% Average score on Formative Quiz (CLO retainment)

❷ 98% of student Enjoyed it and 78% Learned from it.

Research Objectives

- Increase student Participation
- Enhance method of attainment of Intended CLO
- Improve Student Experience int the classroom

Impact

❶ Quotes from CES / SSLS from students illustrate the impact of Gaming;

Future Developments

❶ To achieve100% participation of students

❷ Have students develop their own Knowledge base game
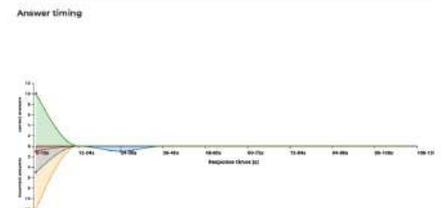

Kahoot!
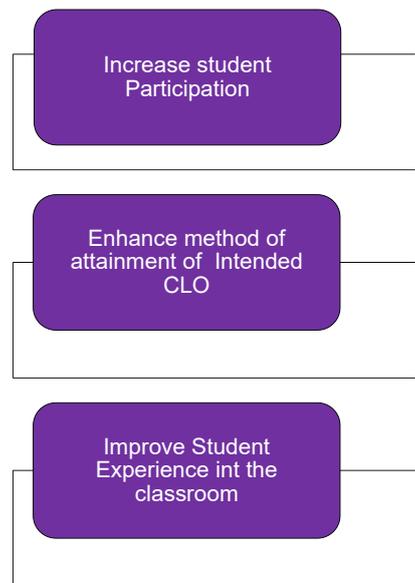
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جامعة الإمام عبدالرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY
عمـــادة تطويـر التعليم الجامعــي
Deanship of Academic Development

Fellowship Program in Learning and Teaching
Deanship of Academic Development
Imam Abdulrahman Bin Faisal University

Publication Pressure among Medical Professionals and its Effect on the Quality of their Research and Teaching

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2. Family Physician, National Guard Health Affairs

Introduction

Medical professionals in the field not only undergo the pressures of their patients' wellbeing and their own, but are also burdened by the "**Publish or Perish**" culture found today in many scientific centers and institutes.[1]

A career in the medical field does not come without consequences, whether mental, physical, or emotional. Evidence suggests that those in this field are experiencing professional **burnout**; a condition defined by emotional exhaustion, depersonalisation and a poor sense of accomplishment as first described by psychologists Christina Maslach and Susan Jackson in the 1970s.[2]

The **Publication pressure** questionnaire strongly relates to burnout and could also be beneficial for policy makers and research institutions to assess the degree of publication pressure in their institute.[3]

Therefore, research that facilitates early detection of both burnout Syndrome and publication pressure is needed to encourage the adoption of preventive measures and to prevent their overall effect on **academic performance.**

Research Aims

Up to our knowledge, it is the first study in Saudi Arabia that sheds a light on publication pressure and its effects on the overall performance of academicians.

1. To Asses
- the prevalence of publication pressure among medical professionals in Saudi Arabia

2. To Identify
- the relation of publication pressure with various sociodemographic factors
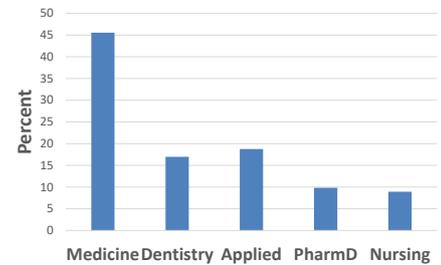
Methodology

A **cross-sectional** study using valid self-administered online Publication Pressure **Questionnaire** [1] filled by medical professionals of Imam Abdulrahman Bin Faisal University in Saudi Arabi.

The responses are scored on a 5-point Likert scale. Publication pressure is evaluated using 14 valid statements Additional **demographic** information is gathered as well. In total, 112 medical professionals completed the questionnaires of which 63% females.

Outcomes

- **75%** • Believe that publication pressure 'prevents them from maintaining their clinical and teaching skills'
- **60%** • Judge that publication pressure 'has become excessive'
- **50%** • Believe that publication pressure 'affects the credibility of medical research'
- **20%** • Are stimulated by the 'publication criteria for promotion'
- **13%** • Believe that the competitive scientific climate 'stimulates them to publish more'
- **4%** • Believe that their scientific publications 'contribute to better future medical care''

Work Priority

Age of the participants

Academic Rank

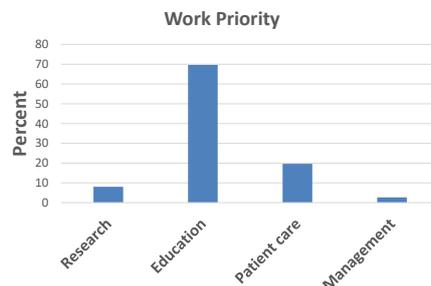Participants' Colleges

Correlates of Publication Pressure
In univariate analyses, age and having home living children were positively associated with publication pressure ($p < 0.5$).

Impact

❶ Publication pressure studies can be beneficial for policy makers and research institutions to asses the effect of publication pressure on the overall performances of their faculty including teaching skills.

❷ This study led to meetings with the policy makers at the colleges' level to come up with a proposal to be submitted to the policy makers to re-visit the criteria for promotion for medical professionals.

Future Development

- To sustain responsible research, institutions should **invest** in resources to combat the high demands, such as fostering an open atmosphere where difficulties can be discussed and where researchers have some freedom in **focusing** on **teaching** as well as **research**.

- A substantial proportion of medical professors believe that publication pressure has become excessive, and is affecting their teaching skills. **Further** research should address the effects of publication pressure in more detail and identify **alternative** ways to stimulate the **quality** of medical science.
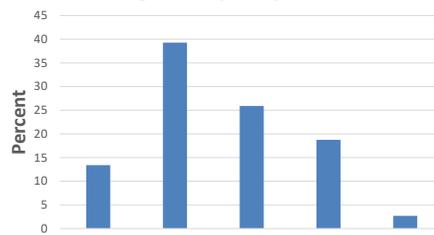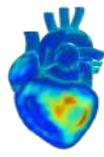
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Enhancing Conventional Engineering Education Through Incorporation of Simulation Tools

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Abstract

In engineering classes, students often straggle to connect the basics engineering courses, such as mathematics, physics, electromagnetisms with the upper level course topics they learn. They see different level courses as fragmented entities. This straggle is often addressed by taking students to laboratory and engaging them with some laboratory experiments. However , this has two challenges 1) most programs can not offer laboratory equipment for all courses due to the limited resources. 2) laboratory experiments   have very limited experimental parameters for students to explore.

Here, software simulations as a learning tool is introduced for upper level engineering courses to enhance student learning engagement and motivation.

Research Activity

This is an example a simulation activity were given to the students during the "Biomedical Imaging" course, which is an upper level course.

In class activates: Reconstruct CT images

Modify Reconstruct Parameters to have best image

Quizzes/ final exam questions

Impact

In summary : if this way of engaging students is to be adopted on program level or collage wise level:

- ❖ It will eliminate high cost lab equipment
- ❖ Positive feedback from students
- ❖ Students motivation will be will be boosted.

Overview

- Simulations help students think less like novices
- Students are guided step-by-step through the process of expert thinking
- Students were able to investigate different experimental parameters and see how each parameter effect the overall result.

Outcomes

1. Students have reported enjoying learning this way of learning
2. Some students were motivated to advance their study for a MSc in the medical imaging field.
3. It is noted that the overall performance of students in the exams for questions related to the CT design is very good.

Future Developments

1. For short-term future, we aim to further engage students with this tool and make it part of the assessments.
2. For medium-term and long-term future, we want to encourage all faculty in the CoE to see possibility of developing their own software simulation tool for the topics they teach.
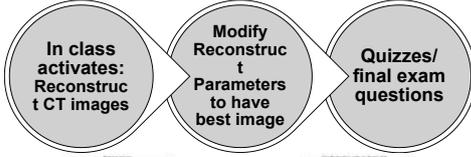
Research Objectives

Use technologies to gain a deeper understanding of engineering concepts extending beyond the classroom.

Minimize the needs for expensive laboratory equipment.

Help engineering students to connect mathematical concepts with high level applied courses.

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