Using Learner-centered Instructional Approach to Foster Students’ Performances

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Abstract—This study aims to delineate the significance of using student centered instructional approaches for enhancing learners' competency in vocabulary learning, in higher education. The working group for this study comprised of 26 students studying the Foundation Year Program in the English Language Centre at University of Bahrain during the academic year 2018-2019. Student Centered “instructions designed according to the model consisting of nine steps of instructional events based on the Condition of Learning theory by Robert. M. Gagné” was used for this purpose. Gagne's model of instructional design provides valuable guidelines to organize lessons as a systematic instructional design process. It focuses on the instructional learning outcomes and how to organize specific instructional events to facilitate effective learning experiences in order to accomplish the intended learning objectives. Applying Gagne's nine stages of learning administers a systematic learning program as it presents a structured framework for lesson planning and a holistic view to the teaching learning process. Prior to using this series of nine levels of learning, students were given a pretest, in order to understand the stratum of active and passive vocabulary they utilize in language learning. At the end of the study, students were evaluated by a post test. The results demonstrated that learner centered instructional approach was successful in augmenting learners’ retention and transfer of productive and receptive vocabulary knowledge in language learning therefore, such learner centred instructional approaches are cogent for paving higher educational academic accomplishments and promoting learner autonomy.

Index Terms—learner centred instructional approaches, academic development, Gagne's model of instructional design, nine events of instruction

I. INTRODUCTION

“Teaching within higher education has experienced a pedagogical shift in recent years, with new approaches to improve students’ motivation, autonomy and achievement” (Fernandes, Flores, and Lima, 2012). Student centered learning is a pedagogical approach that takes learning pace of students, the differences in their learning styles, their interests, skills and needs into consideration. Also, the experiences of students, the learning outcomes, active learning tasks, the content and framework for presenting academic material in conducive learning environment is given significance in the student centered learning environments. Educators prudently facilitate a systematic instructional design process by organizing appropriate pedagogical approaches so that learners are provided support and guidance to accomplish skills in self-evaluation and independence in their learning (Klenowski, 1995). In this context, the purpose of the study was to determine the effects of using learner-centered instructional approaches on students’ development in vocabulary retention and acquisition. The study was guided by Robert Gagné’s model of nine instructional events. Robert Gagne, is respected as a foremost contributor, in the systematic approach to instructional design. According to Reiser et al (2007, p. 26), Gagne’s explication of five types of learning outcomes, and the nine events of instruction remain cornerstones of instructional design practices. Gagne claimed that his nine step process called the Events of Instruction can be adapted as an intentionally organized set of external events outlined to facilitate students’ internal learning processes. His model for instructional development renders an effectual framework for teaching learning processes as they facilitate in developing active learning strategies and learning tasks for instructional classes.

II. MATERIAL STUDIED

Robert Gagne was an eminent educational psychologist who pioneered the science of instruction in the 1940s. His book entitled “The Conditions of Learning,” first published in 1965, identified the mental conditions that are crucial to facilitate effective learning experiences in order to accomplish intended learning outcomes. Robert Gagne is held with great esteem in the field of instructional design and instructional technology at large (Reiser and Dempsey, 2007; Joyce and Weil, 1996; Glattthorn, Boschee and Whitehead, 2009; Gagne, Wager, Golas and Keller, 2005). This is particularly indicated in the work of Reiser, et al (2007, p. 26), who stated that “another important event in the history of instructional design occurred in 1965 with the publication of The Conditions of Learning by Robert Gagne who described five domains or types of learning outcomes that require different set of instructions to promote learning.” Gagne proposed a nine-step process to arrange specific instructional events to achieve learning outcomes of those instructions. Gagne (1985) described the nature of an instructional theory as an "attempt to relate the external events of instruction to the outcomes of learning by showing how these events lead to appropriate support or enhancement of internal learning processes … The province of an instructional theory is to propose a rationally based relationship
between instructional events, their effects on learning processes, and the learning outcomes that are produced as a result of these processes.” (p. 244). When educators pay special focus to the process of learning, they pave the way for enhancement of learners’ potentialities, their active participation, as well as their higher cognitive levels of engagements. (Newble & Cannon, 1995). The model is useful for designing engaging and meaningful instructions for all types of learning. The study aims to answer the question: Does learner-centered instructional approach significantly boost learner autonomy in vocabulary building?

### III. Methodology: Using Gagne’s Model of Instructional Design in Teaching Learning Processes

Robert Gagne’s model of instructional design provides a structured framework, for planning effective lessons using a variety of delivery technics. Prior to planning the lessons, it is suggested that educators ascertain the expected learning outcomes and thereafter contextualize the nine events of instruction in their lessons using appropriate active learning strategies for accomplishing the specified learning objectives. The nine events of instruction provide a holistic view to teaching learning process and involve nine activities namely: Gaining attention, informing the learner of the objective, stimulating recall of prior learning, presenting the stimulus, providing learning guidance, eliciting performance, providing feedback, assessing performance and enhancing retention and transfer (Hanson and Asante, 2014; Ahmed, 2011; Reiser and Dempsey, 2007 and Gagne, et al 2005). Gagne’s proposed model was applied to develop active and passive vocabulary learning. The series of nine instructional events outlined below have been adapted from Gagné, Briggs, and Wager (1992). Additionally, some useful strategies for implementing each event have been detailed in order to enhance students’ academic performances.

**Event 1 Gaining attention**

This stage highlights educators’ role in ensuring that students are ready to learn and participate in learning tasks by displaying stimuli to gain their attention and arouse their curiosity for the lesson. Gagne proposes that learning material should provoke learners to be inquisitive and motivated (Lawson, 2010). Slavin (2009 p. 160,) defines attention as “active focus on certain stimuli to the exclusion of others.” Attention is gained when learners understand “this is important”. This can be accomplished by using prompts, and/or by varying the voice levels, applying body gestures, repeating key words, using demonstration and informing the relevance of forthcoming information Slavin (2009, p. 160) At the very beginning of lessons, it is worthwhile to emphasize to students the relevance of vocabulary acquisition in language learning and how it would impact their oral and written communication in academic achievements as well as enhance their competencies for future career pathways. This reinforcement triggers learners’ intrinsic motivation and enhances their learning autonomy. Some useful strategies employed for gaining learners’ attention involve: showing realia, showing pictures of concrete words using multimedia to kindle a variety of sensory cues, utilizing relevant key words from current events to grab attention to unfamiliar words, asking thought provoking questions related to new terminology, using ice breaker activities like word wizard and listening to Ted talks to understand how robust vocabulary improves all areas of communication.

**Event 2 Informing learners of the course goals and objectives**

At the next stage, learners should be informed about the learning outcomes. Students are eager to know the learning objectives of a new course and what they will be able to perform by the end of an academic semester, and how the newly gained knowledge or skills will be significant to their future. Gagne et al (2005, p. 196) suggest “presenting students with learning objectives communicates an expectation of the knowledge and/or skills they are expected to perform.” The reason for enumerating the learning goals is essentially to highlight the skills and competencies that learners should be able to accomplish at the end of a learning program (Adam, 2004). Hence, at the beginning of an academic session, educators should explicitly state the goals of a course, the expected learning outcomes using action verbs and link them with real world applications. If learners understand how the learning tasks are relevant, they will engage with the tasks and be actively involved in the lessons. For instance, “be able to use contextual clues to understand meanings.” Some helpful strategies utilized for informing learners about the learning objectives comprised of: distributing course outline with learning outcomes explicitly stated at the beginning of academic semester, encouraging questions and clarifications to build a clear perception of learning outcomes, distributing scoring rubrics to understand criteria for standard performances and including measurable action verbs in the instructional strategies for vocabulary building activities i.e. “Make inferences from informational texts.”

**Event 3 Stimulating recall of prior knowledge**

Learners learn best if new knowledge is put into a context that they are familiar with. This event focuses on applying strategies that enable learners to recall and connect prior knowledge with new information or relevant life experience and enhances long term retention of learnt material. “Prior learning is the fundamental pillar” of the idea of “from known to unknown...” In fact “it is the old information and the new information combined that enables an attentive, expectant student to achieve mastery of a task.” Tuckman and Monetti (2011, p. 481). “New learning invariably builds on prior learning,” as claimed by Slavin (2011, p.481). According to Gagne et al (1988) during the unfolding of ongoing learning material, the prior gained knowledge must be available to learners. By using learnt vocabulary and relating it to new topic while sharing thoughts will enhance interpersonal and intrapersonal aptness. It fosters the learning process by enabling learners to absorb and assimilate the new information into their existing knowledge and interpreting it based on their previous diverse set of experiences, beliefs, and mental structures (Good and Brophy, 1990). 14,15,Some
effective strategies used for kindling prior knowledge encompass: posting a learning outcome for vocabulary development and using effective instructional teaching tools like KWLHAQ graphic organizers charts to enhance vocabulary knowledge, i.e. using synonyms and antonyms, playing vocabulary review word games using familiar and unfamiliar vocabulary, using structural analysis by focusing on previous learnt common roots and linking affixes, creating a word map, encouraging learners to list vocabulary words in their writing journal and use them in their writing compositions.

**Event 4 Presenting the content**

At this stage, the new content is presented to students. In order to provide the stimulus in an effective manner, the academic content should be organized meaningfully, and possibly explained using a variety of multimedia to cater to different learning styles. It is helpful to organize and chunk the academic content into small manageable sections to avoid overwhelming students with cognitive overload. While displaying content “the teacher must discern what new stimulus/information is required by an objective and how to present that new stimulus information so that students can perceive and retain it.” (Tuckman and Monetti, 2011, p. 481) Some useful strategies used for presenting the stimulus include: using cues for teaching, giving sentence examples of new words, explaining word meaning using simple language, selecting and teaching only a small number of content specific words and key words in each lesson to facilitate comprehension, preparing a list of vocabulary from each unit and posting online i.e. through learning management system like Blackboard and selecting relevant words from the frequently used Academic vocabulary and AWL (Academic Word List) and categorizing into six or seven worksheets and uploading on the course website.

**Event 5 Implementing “Learning guidance”**

This step emphasizes on providing coaching to students about different strategies that can assist them in learn and applying the newly gained knowledge or skills, in order to enhance students’ academic competencies as well as making them aware of available resources. Nyaga, Oundo and Kamoyo (2014) claimed that learners’ academic accomplishments are augmented through guidance and counseling services. According to Gagne et al (2005, p. 198) “The essence of learning guidance is to provide support for learners in making connection between what they know and what is being learnt.” Teachers should give clear instructions on how to learn and assist students in understanding the criteria for standard performance. By providing learning guidance, educators will boost students’ rate of learning as they are less likely to waste time becoming discontented by practicing in the wrong ways and by using poorly understood concepts in their assessment tasks. Some recommended strategies for providing learning guidance for developing vocabulary building involve: promoting instructional support techniques such as scaffolding, using guided activities like cues, using thesaurus to look up synonyms and antonyms for vocabulary development, checking definitions in learners’ dictionaries, classifying words into parts of speech such as nouns, verbs, adjectives, and adverbs, learning pronunciation of new words, encouraging examples sentences with new words, showing pictures to make visual associations, modeling learning strategies like using word webs to improve and expand vocabulary, using mnemonics and analogies for knowledge construction.

**Event 6 Eliciting performance**

In this event, learners learn by doing. Students engage in hands on learning opportunities to practice, clarify queries and confirm their correct understanding through active learning tasks in order to demonstrate that they have learnt the skill. Eliciting learnt material helps in arousing a stimulating environment in a learner-centred classroom, and makes learning enjoyable and memorable by connecting new and old information. Elicitation strategies also increase student talking time (STT) and reduce teacher talking time (TTT) and encourage students to apply useful incidental language during classroom interactions. Learners are provided “Opportunity to practice or otherwise perform what has been learned” (Reiser et al, 2007, p.41). Repetition boosts retention of new knowledge and skills and helps in internalizing newly gained knowledge. Kauchak & Eggen (2008, p. 379) stated that “People learn to do well what they practice.” Some effective strategies utilized for eliciting students’ performances include: using gamification of learning i.e. Kahoot, incorporating cooperative learning activities like word wizard wherein students select new words and find their meaning, pronunciations and write example sentences and share in groups, allowing students to apply newly learnt terminologies in written compositions and in class presentations to confirm correct understanding of these terms, giving written assignments to practice the content words in class or digitally through educational technologies like Blackboard Learn, using recall strategies such as making references to their prior knowledge, asking deep-learning questions, facilitating elaborations of details as repetition enhances retention, including collaborative tasks that require exploring unfamiliar vocabulary and contextualizing them to real-world experiences. Such tasks are conducive for enhancing their learning process as they would transform their receptive vocabulary into expressive vocabulary and they would progress from merely comprehending and responding to using vocabulary to construct sentences to express themselves It is pivotal for learners to be able to exhibit their understanding of newly gained knowledge to their educators as well as to themselves to ensure that the new learning has taken place. (Tuckman and Monetti, 2011).

**Event 7 Providing Feedback**

While observing students apply newly gained knowledge or skills, it is helpful to give immediate detailed formative feedback to inform them about the tasks they did correctly and to offer guidance on how they could improve their performances still further. Such timely constructive feedback facilitates reinforcement of concepts and clarifies any misunderstandings. Use of rubrics helps students understand feedback better. In this stage, peer feedback can also be
very contributory. According to Gagne, et al (1992), it is not enough only telling learners “Good job” or “You are not right.” Instead, tell them why they are right, why they are wrong and what must be improved. Kauchak and Engen (2008, p. 379) suggested that “feedback means information about existing understanding that we use to enhance future understanding.” They advocated that for best results, teachers should give immediate corrective and remedial feedback to inform students about the accuracy of their performance. Hence at appropriate stages different types of feedback can be utilized like confirmatory feedback (to inform the learner she/he performed what she/he was expected to do), corrective feedback (to apprise the learner the accuracy of his response), remedial feedback (to orient learner in the right direction to find the correct answer without actually providing the correct answer), and informative feedback (to provide new, additional related information to a learner to confirm she/he is attentively listening during the lesson) and analytical feedback to provide the learner with suggestions, recommendations, and information for him to rectify his performance.

Event 8 Assessing performance

In this phase, educators monitor learners’ progress to evaluate the effectiveness of the instructional events and test learners to gauge if they have accomplished the intended learning outcomes. Learners are also encouraged to perform self-assessments to examine their own learning and levels of understanding. Getting students involved in evaluating themselves, making judgments about their own performances, identifying content areas that require improvements and improving upon them, bolsters a shift towards student centred learning. It is very likely that this approach serves as a ‘wake-up call’ and motivates students to set their own goals and take the necessary steps to enhance their competencies. Hammill (1986) postulates that assessment is the process of obtaining and analyzing information about learners for some specific reason, quite often for diagnosis of specific problems hindering the learning process and for designing instructional programs. Some effective evaluative strategies employed for assessing learners’ performances include: integrating gamification as a formative assessment tool e.g. Quizlet, Plickers technology, using think pair share activities, using strategic questioning strategies, or paper based class quizzes, tests, exams, conducting pre-tests to diagnose level of students and post-tests to gauge level of improvement, giving written assignments, embedding oral questions during class instructions, encouraging peer and group review of class presentations and writing portfolios as ways to demonstrate their understanding and grasp of newly gained knowledge and using Blackboard Learn as a learning management system (LMS) for providing an effective virtual learning environment to students for knowledge sharing and formative assessments.

Event 9 Augmenting Retention and Transfer

This instructional event helps students develop expertise by internalizing the new knowledge or skill. While retention signifies the condition of retaining knowledge and skills, transfer of concepts refers to enhancing the learners’ abilities to recall newly gained knowledge or skills at the appropriate time. In the last stage, students reinforce and internalize new learning by applying it to new contexts. Experiential learning opportunities promote vocabulary retention by personalizing information and when students transfer their new learning to new situations their performances exhibit that they have retained the newly gained knowledge or skills. Some useful strategies for internalizing new knowledge and transferring to new situations include: elaborating a story using receptive and productive vocabulary, explaining details of real world experiences using familiar and unfamiliar vocabulary, paraphrasing, summarizing, using word classes, synonyms, antonyms, affixes, comfortably, creating word webs, reiterating information, relating new content to a relevant life experiences, doing role plays using domain specific vocabulary, encouraging inquiry based learning, asking deep-learning questions, referencing to prior knowledge, using dictionary to write definitions, promoting learner autonomy by encouraging learners to note useful words from extensive reading, movie or songs in a journal and enhancing vocabulary acquisition through extensive reading on free eBook reading devices.

IV. RESULTS AND ANALYSIS

The study utilized a quantitative method to examine if there was a statistically remarkable difference between students’ accomplishments in an exam before and after applying student centered approaches.

Sample

The sample for this study consisted of 26 students (five males and twenty one females) who were studying the Foundation Program at the English Language Centre during the academic year 2018-19 at University of Bahrain. The courses in the Foundation Program are specifically designed to develop learners English language skills along with other essential skills to help them attain the right level of qualifications prior to their enrolment in undergraduate studies.

Instrument

The study was experimental and pre-test and post-test were administered to collect data about students’ accomplishments before and after implementing the student centred approaches. Pre-test was given on October 21 and the post-test was given on December 02. The test consisted of 22 binary questions and 8 matching type questions, including cloze questions, sentence completions by determining correct word forms, linking content words with their definitions, identifying synonyms and antonyms, gap filling by using appropriate phrases, building root words by adding prefixes and suffixes, finding the odd words from the given alternatives of domain specific vocabulary and using text structure to comprehend meaning from context The questions assessed students’ proficiency in language learning by gauging their competency in understanding, building and using active and passive vocabulary related to
academic course material. The pre- and post-test scores obtained from students were compiled and the scores were entered into SPSS. The data was collected, tabulated and analyzed. Descriptive statistical using the mean and standard deviation and inferential statistical using paired sample t-test were applied to examine if there is a significant difference between learners’ accomplishments on the pretest and post-test scores after the intervention. In addition, the results were elaborated through bar graphs for better understanding.

**Result**

The experimental evaluation analysis of quantitative data on students’ performances, noted above demonstrates that students’ cognitive capabilities had improved through instructions designed on cognitive theory. Gagne's model of instructional events had a statistically significantly positive impact on teaching learning processes as they boosted learners’ productive and receptive vocabulary acquisition, fostered retention of newly learnt words, expanded their range of active vocabulary and built learner autonomy, \( t(25) = 2.328, \ P = 0.028 \). The scores means indicate that there is a significant difference between the performance of students on the pretest (Mean = 17.423, SD = 3.679) and posttest (Mean = 20.269, SD = 4.574) groups.

<table>
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<th>N</th>
<th>Mean</th>
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<tr>
<td>Posttest</td>
<td>26</td>
<td>20.26</td>
<td>4.574</td>
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Figure 1: Showing the Mean & Standard Deviation of the Performance of Pretest and Posttest

Gagne’s series of nine events provided a sequence of events that were easy to follow as a process in order to obtain the intended learning outcomes explicitly outlined at the beginning of the learning program. Finally, implementation of the vocabulary learning strategies not only helped in the retention of the vocabulary but they also instilled within the students a sense of contentment and pride that they could use precise terminology to express their real life experiences. Vocabulary is a strong indicator of student success (Baker, Simmons, and Kame‘enui, 1997).

V. DISCUSSION AND CONCLUSION

During the process of this study, interactive pedagogies like gamification (Kahoot), think, pair and share activities, role play, pair and group discussions, students’ brainstorming, group interaction proved to be constructive. The authors relied on process-oriented model of Gagne’s nine events of instruction. It helped in ensuring that students had attained the learning objectives. This model assisted students in deep learning of vocabulary items. Their active engagement in learning tasks led to durable learning, and fostered vocabulary accomplishment through expansion of expressive vocabulary as students continually integrated new knowledge into existing knowledge. The results of this study are in line with many similar studies (Klenowski, 1995; Geven and Santa, 2010). Likewise, Reiser et al (2007) claimed, the nine events provided an effective framework to plan lessons for effective learning.

The conclusion of the study is that learner-centered instructional approaches significantly boosted deep learning of vocabulary as they focused on the needs and subsequent development of learners, instead of the academic material as an endpoint. The Gagne’s nine events of instruction catered to a variety of learning styles and facilitated the learning
process significantly. It provides a structured approach to formulating the lesson plans allowing students the opportunity to practice the language in situations where they will actually use it (cf. Izumi, 2002) When interaction is emphasized for language knowledge construction, it boosts language learning. (Swain, 2000). The classroom environment emphasized on interaction, conversation, and vocabulary usage, rather than on learning about the language. Hence infusion of student centred instructional approaches to vocabulary building is suggested as they will bring sustainable education.

VI. LIMITATIONS OF THE STUDY

One of the limitations of the study was the comparatively small sample size used for the purpose. Twenty-six students enrolled in the Foundation Program in the English Language Centre at University of Bahrain during the academic year 2018-19, participated in this study. A larger sample size would have ensured a representative distribution of students’ development of vocabulary building using student centred instructional approaches.

VII. RECOMMENDATION

Based on the findings, this study recommends that student centred instructional approaches are useful for vocabulary consolidation as they provide ample opportunities for students to self-assess their progress in learning vocabulary and for a teacher to assess students' progress informally and facilitate their vocabulary building. It boosts students’ ability to clearly articulate their ideas and communicate in meaningful ways. A further research on vocabulary accomplishment and development, especially in the English as a Second Language (ESL) context, can be conducted by comparing students from different faculties in University of Bahrain. It is recommended, at a later stage, to research the progress of students who participated in this study, to attain a clearer perception into their ongoing progression in using expressive vocabulary skillfully and to which extend, do their utilization, boost their language comprehensibility as they progress to higher levels of education. A reflection of these determinants can be of much significance for future researches on vocabulary building and retention strategies.

REFERENCES


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