Understanding Bloom's taxonomy for improved student learning in tourism and hospitality at a university of technology in South Africa

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Abstract

The aim of this theoretical paper is to unpack the process of learning whilst understanding Bloom's taxonomy. The research questions which guide this review are: How is Bloom's taxonomy linked to learner outcomes? How can the use of Bloom's taxonomy guide a systematic assessment of and for student learning? How can student learning be further enhanced? Studies have shown how the appropriation of Bloom's taxonomy can enhance active student engagement and, consequently, create a conducive learning environment when applied to learner outcomes, learner objectives and during assessments and activities. Bloom's taxonomy was developed to apply multiple domains of thinking and not just the knowledge of learning. Students within the field of tourism and hospitality are expected to enter an ever changing, client-focused and demanding enviroment which requires constant paticipation, enthusiasm and the ability to work with people. Literature reflects how students entering university may not necessarily be academically prepared as high level of drop outs exist. Findings from the literature also reflect challenges for educators and students alike, which may hinder the learning process are, inter alia overcrowded classrooms, diversity in student cultures, language differences and styles of teaching. The learning process is also challenged by the concept of self-study and facilitation as the passive form of instruction is minimised. In addition, the learning process could be affected by the educator's enthusiasm, knowledge and experience. Recommendations, therefore, include empowering educators with skills to understand the different styles of learning and implementing learner profiles, as well as encouraging case-based learning with a variety of activities in order to promote higher-order learning. By applyiing the most appropriate learning approach, with the style relevant to the student, positive results can be obtained. Lecturers must apply Bloom's taxonomy to accommodate a variety of students' learning needs, and ensure full cognitive development.

Keywords: Bloom's taxonomy, students, educators, learning, enhance, tourism and hospitality education.

Introduction

This paper reviews the literature about the process of learning, coupled with Bloom's taxonomy and how it may be applied to the context of learning and assessment, within the Faculty of Human Sciences in a university of technology in South Africa. Bloom's Taxonomy

encompasses three learning domains: the cognitive, affective, and psychomotor, and allocates to each of these domains a hierarchy that parallels different levels of learning. The Faculty of Human Sciences is multidisciplinary, encompassing five departments, namely Communication, Education, Legal Sciences, Hospitality, Tourism and Public Relations Management, and Visual Arts and Design. The article intends to enhance education, in particular tourism and hospitality, through better use of Blooms Taxonomy.

In South Africa, higher education is still faced with challenges, as statistics reflect the level of dropout at 47 percent, with the number of students completing a qualification at an alarming 23 percent (Council of Higher Education (CHE), 2015). Similarly, with specific reference to the university of technology in this paper, only 58 percent of the 2016 first-year students returned to continue their studies in 2017. This indicates a first-year dropout of more than 40 percent across all qualifications. Furthermore, 23 percent of the total enrolments were in the fields of the Human Sciences faculty, of which 98 percent of the students were black African. It is recognised that the majority of black South Africans live in poverty and that these poor students are the least academically prepared for university studies, even more so in high-risk areas of study, leading to high dropout rates (Department of Education (DoE), 2012:39; Withnall, 2016). In addition to the high dropout of first-year students, the students remaining at the University of Technology, with specific reference to the one in this review, stay in the system for extended periods of time since they reduce their academic load by enrolling for fewer modules, on average only 67 percent of the full course load (Vaal University of Technology (VUT), 2016:35-86).

Within the field of tourism and hospitality, the environment is constantly changing, and is becoming more challenging for students as they are required to develop interpersonal skills, commercial awareness and knowledge of all foreign attractions and offerings, and be technologically savvy to interact with businesses, clients and respond on various platforms. Similarly, students are expected to be fluent in English (Hsu, 2014:50) as an international language, but also in various other languages in order to interact and promote business (Cañas & Pérez, 2015:298) across borders. Students are also required to take charge, develop as possible entrepreneurs, and become more competitive (Littlejohn & Watson, 2004:408). The cognitive level has to be developed to encourage understanding and having the ability to make decisions and determine the best course of action within any given situation. The challenge remains as to how to bridge the gap between the critical role of teaching staff in tourism and hospitality education and the more dynamic process for creative atmosphere development (Li & Liu, 2016:9).

Bloom's taxonomy was developed in 1956 by Bloom, Engelhart, Furst, Hill and Krathwohl and later revised in 2001 by Anderson, Krathwohl, Airasian, Cruikshank, Mayer, Pintrich, Raths and Wittrock. Bloom's taxonomy is a hierarchy, which defines various orders of thinking, commencing at a lower level, and progressively moving to a higher level. The aim is to achieve higher-order thinking. The categories include knowledge, comprehension, application, analysis, synthesis, and evaluation. The six major features were later revised and categorised as remember, understand, apply, analyse, evaluate, and finally create (Crowe, Dirks & Wenderoth, 2008:369). The revised taxonomy allowed the nouns to be changed into verbs. Bloom's taxonomy focuses on six verbs, which define each stage of the learning process.

International studies undertaken on the application of Bloom's taxonomy indicate that applying the revised taxonomy to the fields of business information systems (Nkhoma, Lam, Richardson, Kam & Lau, 2016:87) and IT courses, students were able to improve their critical thinking abilities and through the discussion sessions, understanding and application of theory to practice was expressed positively. Similarly, the application of Bloom's taxonomy to a business undergraduate course in a higher education school in Brazil, by Ching and da Silva (2017:107), proved positive for the students and professors. The study focused on the

experience obtained in the planning of education objectives, teaching activities, assessments and the alignment to develop competencies linked to Bloom's taxonomy. This approach required first, the engaging and training of professors, second, the aligning of Bloom's taxonomy to competences, thirdly, the formulating of learning objectives for each competency and lastly, the planning on instructional activities and assessment criteria. Students felt more involved and appreciated the instructional activities more and through the achievement of each cognitive level, students were able to analyse and construct better solutions. Furthermore, the usefulness of applying Bloom's taxonomy has been identified by Britto and Usman (2015:1-8) through the analysis of various studies relating to software engineering. Bloom's taxonomy has been applied in this course design and assessment, with four studies openly stating the value of Bloom's taxonomy in software engineering education.

In South Africa, studies on the application of Bloom's taxonomy were undertaken during the development of curriculum and learner guides in the field of Electrical Engineering at a University of Technology, similar to the one in this review. Meda and Swart (2017:399) recommend that academics regularly participate in workshops reviewing learning outcomes to ensure the effective use of the verbs used in Bloom's taxonomy, which will result in improved student learning. Similarly, Swart and Daneti (2019:39) analysed the learning outcomes of an electronic fundamental module offered in both Romania and South Africa. The use of Bloom's taxonomy framework found that the two lower levels of Bloom's taxonomy were prominent (58%) in the learning outcomes. The remaining levels were present amongst the majority (85%) of the studies, with recommendations made by the authors for other universities to promote higher cognitive development through adapting learner outcomes to coincide with Bloom's taxonomy. When applying the verbs of Bloom's taxonomy to the learning outcomes, it allows the bridging to higher thinking and encourages the development of thinking skills, through the use of the various verbs at each level. Although the above-mentioned studies are useful as a framework for this paper, further insight is needed as to how to encourage improved learning within the Faculty of Human Sciences, a multidisciplinary faculty within a university of technology in South Africa. This paper tries to interpret the understanding of the occurrence of learning, factors influencing learning and the role of memory during learning and provides guidelines to encourage a more student-centered approach to enhance learning from the perspective of the educator.

Statement of the problem

There are many factors influencing the learning activity of each student. Learning is a lifelong process and needs to be fully understood by both the individuals and educators, especially through the various levels of development. The ability of the student to learn is burdened by aspects such as cultural differences, level of skill of the educator, method of teaching, enthusiasm of the educator, the environment of the institution and amongst other, the level of literacy and the transition from secondary education to higher education (Coertjens, Donche, De Maeyer, van Daal & van Petegem, 2017:499). Furthermore, a challenge that still exists amongst university students is to bridge the gap between memorising and application (Bush, Daddysman & Charnigo, 2014:1). Within a theory-based subject, it is important to memorise and understand, for example, the process of solving problems, which is a sequence of logical steps and usually found within activities that require memorising and repetition. However, certain scenarios require an in-depth understanding of a problem and having thorough knowledge and experience within that field to find a solution.

The passive form of instruction usually found within secondary schools is now minimal at university level. Students are encouraged to read and explore while using technology to communicate and interact with one another and are expected to conduct self-study effectively. Students now enter an environment where facilitation is taking place. Within universities, educators are also faced with challenges, namely massification of classrooms,

language barriers for a higher number of international student enrolments and students from various rural regions, and reduced literacy levels amongst the students. This is further burdened by the diverse cultural differences amongst students.

The university environment and society are constantly changing and the thought process and understanding also needs to adapt. It is critical for a student to understand work content in a manner that will allow for application, as well as evolvement and adaptation. The learning approach must be able to minimize the gap between industry and the academic world (Bhan, 2014:1). Determining whether the understanding of the work content was accurate is usually only seen during assessment times and exams.

Aim

This review aims to grasp the concept of the verbs used in Bloom's taxonomy and how it guides the learning stages of an individual. By understanding the learning cycle, recommendations can be made to assist in the early identification of the levels of students' ability to learn and how to apply changes in the content of the prescribed literature to ensure full development of knowledge, understanding and interpretation.

Methodology

An integrative literature review was applied which reviewed, critiqued, and synthesized secondary data about Bloom's Taxonomy in an integrated way such that new ideas and perspectives on the topic were generated relating to tourism and hospitality education improved student learning. The literature review surveyed books, scholarly articles, and any other extant relevant sources on the issue.

Literature review

According to Williams (2017:1), educators in higher education have a complex role in encouraging students to become lifelong learners. Students need to be empowered with the skills to examine information, evaluate and develop creative ideas. The role of educators is further challenged (Williams, 2017:1) as students are required to interpret information with real-world events, reinforcing realism and understanding the course material to gain maximum significance. Bloom's taxonomy is being used to guide educators to write measurable outcomes and describe goals of how students should improve their thinking (Stanny, 2016:1). However, challenges are still occurring in South Africa, as the use of verbalised frameworks needs to be notoriously flexible (Stanny, 2016:10). To apply Bloom's taxonomy would require educators to consider the literacy level of the student, degree and level of difficulty of the work and whether students are capable of correlating content with their experiences. Using verbs with multiple interpretations can place a strain on students within undergraduate qualifications and encourage self-learning amongst students of post-graduate qualifications. Therefore, it is essential to consider the audience and the outcomes of the work content.

The occurrence of learning

Learning occurs through six domains: remembering, understanding, applying, analysing, evaluating and creating. According to Shabatu (2013:1), each field defines a level of progression: remembering is the recovering, recognition and reinstating of relevant information from the long-term memory. Understanding is described as the accurate interpretation of material, while applying refers to the application thereof or implementation within the field. Analysing is the ability to deconstruct information into various components and understanding the interrelatedness of each element. Evaluation refers to the criticising and checking of data with the final level of creating, implying the development of new

information and patterns. The revised Bloom's taxonomy was developed to apply multiple domains of thinking and not just knowledge of learning. Each of these domains has a multi-tiered hierarchical structure for classifying learning (Diab & Sartawi, 2017:2). Bloom's taxonomy is a useful tool in the process of learning as the steps are clearly explained through the use of the verbs. To understand a concept, it must first be remembered and then the concept needs to be applied, which would require understanding it. The process of evaluation is completed once the concept is analysed and to create an accurate conclusion, will require a complete evaluation (Shabatu, 2013:1). Hyder and Bhamani (2016:288) and Bush et al. (2014:1) reflect the importance of recall during the process of implementing Bloom's taxonomy. Bloom's taxonomy allows for dimensions of knowledge and interpretation. A combination of critical thinking on a lower and higher level is encouraged. It is crucial that this combination is installed at introductory graduate courses. However, although these domains assist students in learning, there are still factors that can influence the learning process.

The stages of learning

Rentmeester (2017) regards Bloom's taxonomy as a guide for instruction and learning, progressing from non-rigorous to rigorous. Rigor is defined as the active learning of meaningful content at a higher-order of thinking within a given context at the proper level. Bloom's taxonomy is based on the construction of learning through mastering learning outcomes successively; mastering outcomes at the lowest level and progressing or advancing to levels that are more complex on the hierarchy (Davis, 2014). Wilson, McCabe and Smith (2018:55) cluster these six levels of Bloom's taxonomy into three phases. During the first stage of knowledge and comprehension, learning usually takes place through traditional instruction in the classroom. Key terminology is memorised and an understanding of the primary concepts is created. During satge two, students apply and analyse knowledge. Wilson et al. (2018:55) use the example of a secondary source of the knowledge, which the student now should understand, being analysed and criteria applied to judge its validity and reliability. In stage three of synthesis and evaluation, the students integrate the conceptual skills of phase one with the analytical skills of phase two to evaluate and make judgments about a complex problem, to ultimately create a solution or new knowledge.

Furthermore, according to Yildirim and Baur (2016:3), learning styles are defined through three instructional approaches. The first, active learning, implies encouraging the students to participate by actively engaging in the class on an individual level. The second approach, cooperative learning, requires encouraging the students to participate and engage in teamwork and the third approach, problem-based learning, implies implementing complex questions to ensure the student absorbs and retains the information. Although there may be specific learning stages and styles, it is vital that learning instructions are structured correctly.

Factors influencing learning Blo

om's taxonomy is a challenging cognitive task and for educators in higher education, it is a significant challenge to select appropriate questions for all the different cognitive levels to assess the students (Dubey, 2016:2; Semsar & Casagrand, 2017:175). Factors that influence learning while using Bloom's taxonomy include the type of content taught, which influences remembering, understanding and creativity, the level of difficulty, which defines the ability to analyse and understand, evaluations of questions and the use of cognitive language, which represents application and the type and variety of questions posed, which affect the ability to understand and remember (Semsar & Casagrand, 2017:175).

Raths (2002:237) states that students tend to minimise the cognitive load as much as they can and will attempt to give a response at the lowest cognitive level. Raths (2002:237) further elaborates how problems for educators occur when they believe that the students are solving a problem on a significant cognitive level and are unaware that the students are solving the problem at a low cognitive level. Lin, Zhu, Chen, Wang, Chen, Li, Li, Liu, Lian, Lu, Zou and Liu (2017:11) indicate how learning is further influenced by current examination formats, which may be out of date when compared to the newly developed learning and teaching methods. Furthermore, students do not achieve lower-order cognitive abilities before class (remember and understand) to focus on the higher-order cognitive abilities during class (apply, analyse, evaluate and create). It remains the responsibility of the student to prepare for each session. Educators may be enthusiastic and positive towards teaching, but the student, ultimately, remains responsible for reading the content beforehand.

Hyder and Bhamani (2017:288) reviewed various studies and noted that Bloom's taxonomy might not be the only method of teaching, but it has a high impact rate on actual learning. Factual learning is difficult unless embedded in something which is understood. Student motivation plays a critical role in programme success. It is, however, important to remember that the mode of instruction, the flexibility of instruction and the stipulated outcomes of the curriculum, require either memory or application, the level of motivation of students and if the curriculum meets the needs of students with special needs. Therefore, although there are a variety of factors that influence learning, memory plays a significant part when using Bloom's taxonomy learning theory.

The role of the memory

Memory is a complex process that explains the dimensions of our mental body. Memory is the ability to recall, encode, store and retain information and past experiences. Memory involves the categorising of information and if recalled many times will remain in the memory longer. The process of how people learn is not necessarily addressed through traditional teaching, where the educators are the only ones who are active and the students are passive. The reason for this is that information received passively with no attendant action is not retained in the long-term memory (Felder & Brent, 2004:1). According to Valcke, De Wever, Zhu and Deed (2009:169), the cognitive process involves three types of processes in between working and long-term memory: selecting, organising and integrating information; thus, the mental models are stored and retrieved in the long-term memory.

The first domain of the revised Bloom's taxonomy is 'remember,' which requires the student to retrieve the relevant knowledge from the long-term memory and also to recognise, identify, locate and recall the information (McNeil, 2011:27). The first domain in the original Bloom's taxonomy is knowledge, which requires the students to memorise the relevant knowledge (Hess, Jones, Carlock and Walkup, 2009:3). Memory has a significant role in the revised version of Bloom's taxonomy by encouraging the students to use long-term memory when learning. Furthermore, it can be anticipated that from the first dimension of the revised Bloom's taxonomy (remember), the memory will assist the students with the other domains until the final domain is created.

Implications for teaching and learning

Bloom's taxonomy encourages the development of learning objectives that focus on the skills that a learner has to master. This is best achieved by structuring learning objectives using action words (Adams, 2015:153). Adams (2015:153) further states that this classification system encourages the inclusion of learning objectives that require higher levels of cognitive skills. By including higher levels of objectives, more in-depth learning can take place and the skills and knowledge transfer can lead to the mastering of a greater variety of tasks and contexts.

According to Yildirim and Baur (2016:3), a blueprint for structuring learning instructions includes the improved organisation of class activities, the use of a variety of teaching methods to assist all the students, improved understanding of the educational theories and improved monitoring of the results of the teaching activities. Yildirim and Baur (2016:4) further elaborate by stating that assessment tools that will assist learning include problem-based homework, team projects and case studies. Furthermore, Dubey (2016:6) states that the domains in the original Bloom's taxonomy can be used for educational purposes to develop quality question papers to ensure the cognitive level of the students is defined, quality control of a question paper to ensure quality control of an examination and the classification of questions for the development of automatic question-answering systems.

Through using the six domains of the original Bloom's taxonomy, the learning instructions can be structured appropriately to achieve the educational objectives (Yildirim & Baur, 2016:3) of knowledge: to allow the students to recall the information through arranging, defining and recognising; comprehension: to ensure the student understands the concepts through discussions, descriptions and classifications; application: it allows the student to use the knowledge and apply it to new problems, through problem-solving and interpreting; analysis: to ensure that the students can create a relationship between constituent entities, through analysing, categorising and differentiating; synthesis: it allows the students to complete new problems through arranging, designing and creating and finally, evaluation: it ensures the students can create an opinion related to a specific topic, through justifying, comparing and predicting. However, with the above stated, there are still a variety of implications that can affect learning and teaching.

According to Krathwohl (2002:222), metacognitive knowledge has an important role in students' learning and in the way that students are taught and assessed in the classrooms. The majority of students are taught and tested on a higher cognitive level method. However, the majority of the test questions are on a lower level of Bloom's taxonomy (Crowe et al., 2008:379). A challenge that arises with the evaluation of students is to determine whether the formative and summative assessments are improving the students and pushing them to achieve their goals (Crowe et al., 2008:379).

Furthermore, metacognitive knowledge and self-knowledge are interrelated to how the students learn and perform in the classroom; thus, if the students are not aware of the strategies for learning and thinking, they will not be able to implement them. Therefore, if the students do not have the metacognitive knowledge, they will not be able to implement knowledge and skills on a new task (Krathwohl, 2002:222).

Nkhoma et al. (2016:86) indicates in a study that using the revised Bloom's taxonomy with case-based learning activities showed a positive impact on higher-order thinking. A higher practical evaluation can lead to knowledge improvement, which will, in turn, encourage, increment learning. Furthermore, Anderson et al. (2001) indicate that the use of Bloom's taxonomy has an impact on multiple levels.

The use of the learning objectives assists lecturers to establish a pedagogical interchange in which students have a similar understanding of the purpose of the interchange. Educators are empowered to organise the objectives since they have the benefit to be able to use frameworks. Through organising the objectives, the lecturers find clarity on the objectives for themselves and students. When the set of objectives are organised, the lecturer can plan and deliver meaningful instruction, assessment strategies and design valid assessment tasks and align instruction and assessment with the learning objectives.

Recommendations

The literature reflects how the application of Bloom's taxonomy can contribute to a student-centered teaching approach, which will promote improved student learning when applied during assessments, curriculum development and learning outcomes. Blooms' taxonomy is broadly accepted and a well-defined tool for educators to apply as it allows for the improvement of students' comprehension of and ability to think, apply and learn (Nkhoma, Lam, Richardson, Kam & Lau, 2016:86). Bloom's taxonomy is a hierarchical organisation of educational objectives, which have been used to improve educational teaching and utilised in the development of educational assessment methods (Boles, Goncher & Jayalath, 2015:1).

To ensure a positive learning environment, certain criteria may be recommended in this university of technology as a means of improving the student learning process and assisting in changing the negative dropout levels, amongst other things. Lecturers need then, firstly, to analyse and understand the different learning styles. According to Kagan (2005:1), educators can become better equipped if the emphasis is placed on understanding how the brain functions. If educators have a clear understanding of the various styles of learning and can accommodate this during teaching, it may assist the students in learning better and improve cognitive functioning, leading to better long-term memory.

Secondly, there should be consideration for profiling the students before commencement of qualification to assess their strengths and weakness and identify potential barriers in learning. This may, in turn, assist in the development of a good relationships and create an opportunity for maximum engagement and learning. Findings by Bidabadi, Isfahani, Rouhollahi and Khalili (2016) confirm that the factor of readiness needs to be considered during the planning process of curriculum and teaching methods.

Furthermore, learner profiles are beneficial to both educators and students, as an ideal teaching approach and can be applied to ensure the development of learning and understanding at multiple levels. Even by applying the simplest level of test to assess the student's learning style can give great insight into the student's ability to understand and how the function of learning occurs at its 2optimum point (Pritchard, 2009:54).

Thirdly, the Faculty of Human Sciences has a diversity of fields, therefore, it is recommended to incorporate as many teaching methods as possible, for example, visual, auditory, simulation and active engagement. The appropriate teaching methods need to be identified and used to stimulate learning at the level of learning desired and bridge to the next higher level to ensure deeper learning. Visualisation is a process which allows a gap to be filled between understanding what is not known and reality (Arneson & Offerdahl, 2018:5). Using mobile devices coupled with colourful images and adding sound can contribute to gaining a greater audience and can assist in learning through the senses of hearing and seeing.

Furthermore, using mobile devices with students, studying, for example, Tourism, coupled with semantic technologies, could lead to improved learning and knowledge as collaborative learning will take place (Fermoso, Mateos, Beato & Berjón, 2015:618). Dong (2014:59) refers to incorporating correct teaching methods to fully engage students to course content and encourage the process of learning. Therefore, educators should be taught to change the strategy of teaching for enhancing higher learning continually. By encouraging and enriching the skills of the educators, different teaching approaches will allow educators to highlight critical features that define a specific concept and empower the students to be able to understand and distinguish one concept from another. Machingambi & Mhlanga (2017:7) state the importance of the educator's method to bridge the transfer of knowledge and promote learning amongst the students.

Further implications include, fourthly, that with the massification of classrooms, educators can overcome the challenge and still promote learning by creating smaller groups and applying simulation and role-play to lecturer sessions. Observation of peers within large cohorts can contribute to a better understanding of work content and the understanding of different opinions and thought processes. However, it remains critical for the educator, at this point, to be a strong facilitator (Kelly, Hopwood, Rooney & Boud, 2016:171; Kim & Davies, 2014:6). A study conducted by Cole, Cole and Chancellor (2009) reflects how tourism and hospitality students who engage actively in challenging activities and are exposed to collaborative learning and interaction, have had great improvements in knowledge and learning abilities.

Furthermore, according to Bush et al. (2014:1), assessments are an essential part of any statistics course. More attention, however, must be given to incorporating assessments, which encourage data analysis and article critiques. To develop a reliable assessment method is a challenging task and resources are needed to support this endeavor (Crowe et al., 2008:379). Due to the increasing classroom size and decreasing teaching assistant support, multiple-choice questions are becoming the easiest method to assess the students (Crowe et al., 2008:379). Thus, lecturers need to invest time into the development of the examination papers to ensure that the students are assessed according to Bloom's taxonomy (Crowe et al., 2008:379). The correct use of verbs can encourage a higher order of thinking.

Furthermore, case-based assessments and activities, using the revised Bloom's taxonomy verbs, have contributed to a positive result on higher-order thinking. Case-based activities encourage and improve critical thinking and promote discussions, feedback and ultimately understanding (Nkhoma et al., 2016:86). During the setup of assessments, allow the students an opportunity to create questions, which correspond with the learning goals and different levels of Bloom's taxonomy, specifically the verbs. This approach allows the students to consider what they know (Angelo & Cross, 1993).

Lastly, consider a diverse approach, which includes variety in activities, such as games. Activities must also be enjoyable to the students while remaining mentally challenging. A study conducted by Henning, Hagedorn-Hansen and van Leipzig (2017:105) found a relationship between knowledge, abstraction and emotional immersions with the use of games. The gamification approach increased their understanding and positive emotions. Approaches need to be adapted to promote active learning whereby students can develop their skills instead of receiving transmitted information. This implies the process of reading, discussing and writing, which will require higher-order thinking. The aim is, therefore, to involve students in doing things and thinking about what is being done and interpreting their emotions and understanding (Bonwell and Eison, 1991).

Active learning can also be promoted by applying varying approaches of class activities, namely minute papers, demonstrations, retrieval practices, mini-maps, concept maps and case-based learning (Brame, 2016:1). Activity based learning, according to Bhan (2014, 4) and Baur & Els (2014, 1) can also take place through the use of cartoons, and activities such as field trips, class discussions, quiz/test sessions and daily journals. Similarly, Mchunu (2018:11) found a correlation between field trip experiences and the learning process amongst Eco Tourism students. The activities of physical exposure and experience contributed to covering different types of learning styles, and at the same time contributed to lifelong learning as students observed and conceptualised. Furthermore, applying the best type of learning approach with a style relevant to the student has proven to have positive results for hospitality students in a study conducted by Green and Sammons (2014) in a large public university in the United States.

Conclusion

The tourism and hospitality industry is contemplated as the main contributor to economic growth within a country (Tortella & Tirado 2011:2568) and can provide higher employment opportunities (Lekaota, 2017:1). A study by Ezeuduji, Chibe & Nyathela (2017:1) found that hospitality and tourism students where content after completing their qualification but reliance was on the programme leaders to give thorough guidance and ensure effective curricula development. Therefore, to promote a conducive learning environment for these students, educators need to understand how learning takes place, factors influencing learning, and the role of memory in the learning process. By better understanding each level, educators may have the ability to design and create curriculum and activities that will assist the students in bridging the gap between learning and further development. Using a variety of activities, corresponding to the terminology of Bloom's taxonomy, will encourage cognitive development. Furthermore, there are various types of learning explained in Bloom's taxonomy: active learning, cooperative learning and problem-based learning. Bloom's taxonomy, ultimately, provides a framework for structuring the learning instruction and assessment to align lecturer and student understanding, instruction and assessment to the learning outcomes. Finally, the literature shows that learning instruction needs to be structured accordingly to ensure that the students are assessed according to their current level.

To conclude, no matter which learning theory is applied, there will always be implications and challenges for teaching and learning, which need to be overcome. In South Africa's diverse classrooms, Bloom's taxonomy supports the need to differentiate the curriculum to ensure that students at all levels of educational maturity can engage with the same learning content during a lesson. The structure empowers lecturers to accommodate a variety of students' learning needs by applying questions and activities at different levels to ensure equal participation. With students entering an information-based economy, academics need to align curriculum, which closes the gap between society and institutions and also takes into consideration the needs of the students.

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