

Navigating the Importance of Selected Educational Technology Tools in Enhancing and Transforming the Task-Based Learning Method: Reflective Insights from Teaching Graduate Educational Psychology Students at one Ugandan University

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Abstract: The study aimed at navigating how edtech tools enhance and transform task-based learning method among university students pursuing graduate studies in Educational Psychology. Basing on Blooms Taxonomy especially the Higher Order Thinking Skills (HOTS), Laurillard's Conversational Framework, TPCCK model, SAMR design and the Teaching Change Framework, the researcher motivated the graduate students to utilise Mindmups, Google Slides, WhatsApp texts and Turnitin educational technology (EdTech) tools to navigate if these tools, due to their respective affordances, enhance and transform task-based learning. The study was a visual ethnographic one by design with visual narratives for analysis purposes. It was established that the mentioned tools enhanced learner motivation, interest, participation and ultimately, academic performance. It was concluded that edtech tools, if selected due to their respective affordances, based on the right models, can improve learning and cause changes in the methods in place to transform low-technology-lecturer-centred learning to high-technology-learner-centred learning.

1. Introduction

In task-based learning approach, learners are assigned tasks, are expected to conduct comprehensive research and present findings to their classmates in the presence of the lecturer, that is, the bi product of the task is expected to be as a result of a carefully planned procedure that culminates into a refined work or presentation [1] in the presence of the teacher and fellow learners. Although task-based learning has largely been used in language teaching, it can be applied in any academic field or subject area at either individual or as a group task level [2]. After the task presentations, the teacher is expected to summarise the task presentations through feedback not only for purposes of improvement but also for assessment or award of marks/scores purposes. Under task-based learning, fellow learners are expected to give feedback in form of clarification, questioning and

augmenting, that is, the needs of the learners are paramount and are both sources and products of these learning needs [1]. It is generally expected to be an interactive class activity. Learners are active participants rather than passive listeners [3]. It should be a predominantly learner-centric approach with the teacher as a mere facilitator/overseer.

The only way to fully conceptualise the task-based learning approach is through comparing it with the teaching methods that were hitherto applied before its emergence, that is, the pen, paper, talk and chalk approaches that the learners were familiar with from the days when they were pursuing undergraduate studies [4]. Hence, it should be understood and evaluated contextually. Over the years at Makerere University, it has been observed that among graduate students pursuing Master of Education in Educational Psychology, this learning approach is common but not popular, especially considering the fact that it is viewed as physically and mentally straining, uninteresting and time consuming. Most learners complain that when this approach is used in every subject, there is an increase in time-related pressure since a lot of time is required to complete tasks [5]. Although learners prefer to learn using the traditional teacher-centric approaches, it has been documented that the proper implementation of task-based learning enables a situation where concepts are understood better than in the traditional talk and chalk methods and scores improve at more than 5 percent rate [1, 6].

2. Problem

Mere task-based learning approach has not yielded sufficient results in terms of academic performance and achievement among this particular set of learners. The majority of the learners perform averagely in task presentations and resultant task write ups. Although it is a common method used by different lecturers on graduate learners, it is not popular among the latter. For example, in one semester alone, out of four graduate learners pursuing a Master of Education in Educational Psychology, out of the maximum 10 marks for task presentations, only one may score 8 in the task presentations, two may score 6 and the other, 5. It is also worth noting that there is actually a positive relationship between how graduate students present their tasks and the actual write up which they submit for coursework assessment scored out of a maximum of 30 marks to make the total coursework assessment out of 40 marks. In the long run, the overall performance has not been as great as expected and this can be attributed not only to the lack of interest and motivation in embracing the task-based learning approach but also but also to lack of technology interrogation into task-based learning. The students do not invest ample effort and time to produce the best academic output and this has in the long run negatively impacted on their performance in these tasks, which has resulted into overall poor performance. Most of the graduate learners are also in full time employment and study only in the evenings and hence view this approach as mentally straining and time consuming, and hence an unnecessarily hectic learning approach.

The use of task-based learning approach has, over the years, also revealed that some graduate learners disregard the task products of fellow students as mediocre while others do not willingly share their task notes. The majority of the learners, due to lack of confidence in their task products, still insist on lecturer notes and input and have sometimes questioned the role of the latter in this approach but even when the notes are provided, they do not view them as augmenters to the task notes, but rather, as substitutes. Hence, although task-based learning is meant to be a learner centric approach, it ends up as a teacher centric one. However, it should be noted that in certain rare and isolated circumstances, task-based learning approach has been seen as an opportunity. Some graduate students have been able to produce very impressive project work/tasks that have surpassed the lecturers' expectations. This has resulted into both learner and teacher/lecturer growth, as one of them asserted,

"I love the way this approach has helped me build my confidence and made me own what I research and present in class (M.ed Ed Psychology learner, 2018/2019 academic year).

It should be noted that this task-based learning approach has previously been highly teacher-centric (the teacher gives the tasks, participates in the task presentation when the learner is not discussing as well as expected and gives the learners study notes which replace the task notes) with low use of educational technology (Quadrant A) though focusing on higher order thinking skills (HOTS), for example, learners have been asked probing questions to establish what they know, what they do not know, what they need to think about in order to analyse and evaluate their tasks, like, critiquing the various theories of environmental psychology, and the synchronisation of the task objectives/goals with the content and knowledge under presentation/discussion. So, what has been the problem with the task-based learning approach? Realistically, the way in which task-based teaching and learning has been conducted in the past has been having many gaps. First and foremost, there has been limited interaction between the learner and fellow learners; and between the learner and the teacher/lecturer. At the commencement of the task (task assignment), there was very limited "conversation" or interaction between the teacher/lecturer and the learners. Tasks were merely "dumped" onto the learners and hence no discussion and adaptation. There was no recommendation to use EdTech tools although these tasks aimed at achieving higher order thinking skills because of the cognitive level of the learners (graduate students). At this stage, in the past, the learners were not given chance to ask for clarification on their tasks and this has been going on all through to the completion of the task without reflection. The only interaction between the learner and the teacher/lecturer was at task presentation stage, but still, it was geared towards achieving teacher/lecturer assistance. There was zero use of educational technology to an extent that learners presented using hard copy write ups and the lecturer too provided hard copy study notes. Even the class WhatsApp group platform was not used for content delivery, content explanation/clarification and reflections between the learners and the lecturer, but rather for announcements on non-learning matters. Therefore, the problem with the task-based learning approach was marked by dependence on lecturer notes, low learner motivation, low learner interest, low learner participation, mediocre academic output, limited teacher-learner interaction (during the research stage) and ultimately, low academic performance. It was hoped that the introduction and use of Edtech tools with their respective affordances would transform and enhance these drivers of academic achievement.

The study was based on a few selected models or frameworks. Firstly, the SAMR model, that is, substitution, augmentation, modification and redefinition model which is a learning evaluation framework that is detrimental especially when integrating emerging technologies in the context of teaching and learning. Each of the four attributes/affordances represents a goal of individual edtech tools, since tools are not used just for the sake of mere using. The framework calls for the provision of substitutes, improvements, re-designing and creating new tasks by the tools. The SAMR model urges teachers and learners to view the process as one that transforms and enhances the teaching and learning process through the utilisation of edtech tools [7]. Secondly, the study was also based on and influenced by the TPCK model [8] as a framework that explains the need to integrate technological knowledge, pedagogical knowledge and content knowledge together with edtech tools to give birth to effective learning. The "what" that is, the content and the "how" that is, the pedagogy are the foundation for this integration. Hence, the edtech tools under implementation must have a link with the content and offer support to the method so as to improve the experience of learning. Thirdly, Laurillard's Conversational Framework was helpful in streamlining this study. Edtech usage in teaching and learning can be understood through the major aspects of the framework, that is, the lecturer's constructed environment, learners' specific concept and specific actions through discussion, adaptation, interaction and reflection stages. Reference was made to the need to use edtech tools in relation to the higher order thinking skills (HOTS) as an end goal of the teaching and learning.

There have been queries on how edtech effectively leads to the achievement of HOTS among learners [9,10]. Although the relationship between edtech usage and HOTS achievement may not be significant, its usage should always aim at achieving a positive relationship. Lastly, the study was linked to the Teaching Change Framework [11]. The two authors of the framework argue that this is a tool that is used to locate and show direction to how instructors go through necessary dynamics and focuses on the apparent instructional methods and edtech importance in order to create ways to achieve highly anticipated learning changes. The study aimed at establishing how selected edtech tools transform and enhance task-based learning among graduate students.

3. Method

The population was graduate students pursuing a Master of Education in Educational Psychology who were four in number, purposively selected because of their typicality as a cohort that was previously being taught using the task-based learning approach. The data collection and analysis procedure took the form of visual materials, that is, screen shots of what the graduate learners displayed as a method of task presentations in terms of Mindmups, Google Slides, WhatsApp text messages and Turnitin reports. These, in a way constituted what can be called visual ethnographic design [12] and visual narratives as a method of analysis [13] with the lecturer as an observer and secondary participant. Unusual outcomes were noticed during the observations, that is, the visual screen shots became a creative method through which the participants/learners were able to create their own learning reality. With ethnographic research, a wholesome view of merged edtech use and task-based learning was portrayed through observation of the graduate students through continuous observation [14].

A closer look at the task-based learning approach in its current form seems to reveal that the introduction, integration and use of EdTech tools and their affordances [15,16] concurrently with this approach may actually improve the level of interest, motivation, learner participation and autonomy, creativity and ultimately, academic performance. Several EdTech tools were introduced and used; and these included, but were not limited to; Mindmups, Google Slides, WhatsApp group and Turnitin. Mindmups are effective at creating a mental picture about a topic and its sub topics. They create a conceptual framework about elements of a topic and summarise subject content without necessarily losing key information. Mindmups help in thought building about specific subject content and they are a visual representation of content in building and linking information and making conceptualisation of information easier [17]. Diagrams such as Mindmups are more understood than written words and make complex content a lot simpler [18]. This tool operates as a substitute and augments (affordances of substitution and augmentation) for the large amounts of content but could also be useful at the reflection stage of the Laurillard's Conversation Framework [19,20].

Google Slides on the other hand can be used as a tool to present content from the task research. The slides were used because of their affordance of substitution (in the SAMR Model) of the detailed content which would have otherwise been explained by the students during the presentations at the adaptation stage of Laurillard's Conversation Framework. Learners preferred to learn using Google Slides and they perceived them as interesting, clear and an aid to remembering content [21]. Learners taught using Google Slides score better [22]. According to [23], Google Slides enable the teacher and learners to display texts, pictures, videos and can enable taking screen shots; more importantly, groups can make comments using the commenting feature and they allow for interaction (collaborative learning) between content, pedagogy and technology [20]. Google Slides are free of charge as long as the user owns a Google account and are mobile friendly [23]. The use of Google Slides provides interactive learning, assists in enhancing a shift from the traditional teacher-centric pedagogical styles to active learning [24].

Another EdTech tool that was used was Whatsapp through the formation of a class WhatsApp group named M.ed Psychology 2018/2019, where discussions, interactions and reflections for learner to learner, teacher to learner, learner to content and teacher to content took place so as to enhance students' learning. With WhatsApp, there is a possibility of forming a group as a platform where students as members have equal membership rights, and the lecturer as the creator and administrator of the group. This is a teaching and learning platform and a tool with academic benefits [25]. WhatsApp as an EdTech tool facilitates collaborative learning since it enables knowledge sharing through interactions and discussions [26]. The relationship between WhatsApp usage and student satisfaction is positive and statistically significant [27]. The WhatsApp group was used for augmentation purposes where content that was not well understood during the time of discussion, adaptation and reflection stages was clarified upon on the platform. In some instances, the platform was used because of its substitution affordance to replace real classroom teaching.

With affordances of modification and redefinition, anti-plagiarism software was used as an EdTech tool to stress the importance of originality in tasks. It was not enough for the learners to produce rich content on their tasks but it was also necessary, as they were briefed, that it is academically and professionally vital for them to produce plagiarism-free work. In this case, the tasks were subjected to the Turnitin software. Software such as Turnitin may help to identify and eliminate plagiarism [28]. Turnitin enhances academic and writing skills, improves originality of learning materials in an effort to avoid plagiarism, ensures that sources are properly acknowledged and paraphrasing is improved through its potential as text-matching software [29]. It was anticipated that this would enhance originality in the tasks from the learners and give them a sense of ownership of their individual tasks. However, Turnitin as an EdTech tool is very mechanical and this limits its usability, but also, learners need to be taught the reasons behind the effort to avoid plagiarism [30].

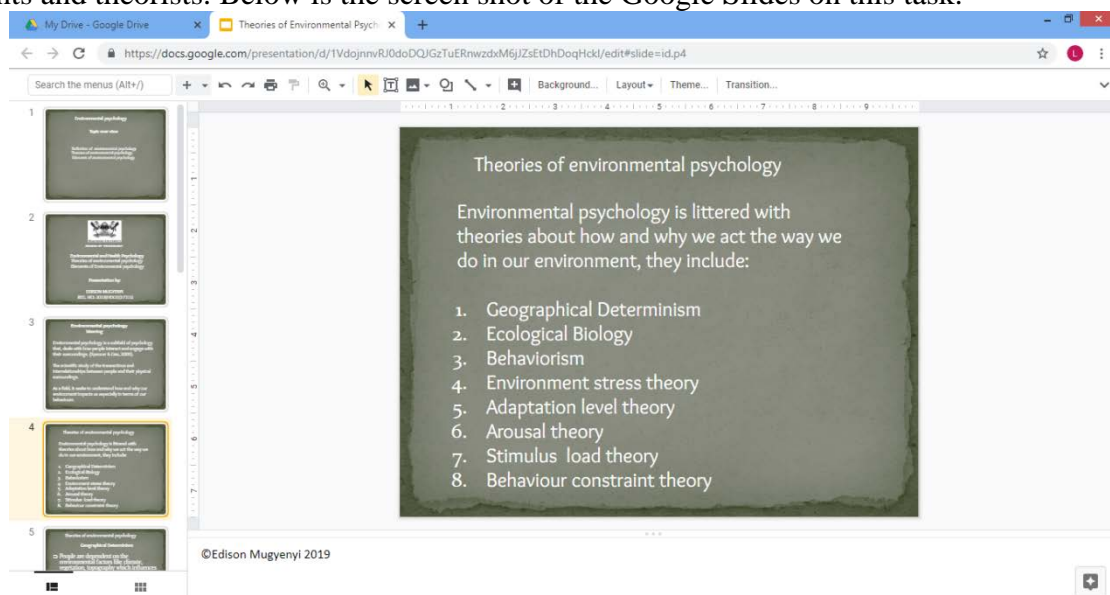
Concurrently with the EdTech tools, the graduate students were expected to benefit from new pedagogical approaches. Previously, the task assignment and task presentation did not involve any discussion about the task titles between the lecturer and the learners before the latter could embark on the tasks. The task-based learning approach would now transform to feature adaptation by the students after discussion after which the actual tasks would be taken on. Task presentations were done concurrently with feedback from both the lecturer and fellow learners. The tasks aimed at achieving higher order thinking skills that is, analysing, evaluating and creating knowledge and content in their respective tasks. The content product from these tasks and through the successive discussions, adaptation, interaction and reflection, would be relevant and applicable and the lecturer would suggest where and how to access subject matter. The tasks and the edtech tools that were employed aimed at achieving the Quadrant C type of classroom environment which is learner-centric/ high use of technology while aiming at achieving the higher order thinking in terms of analysing, evaluating and creating knowledge as proposed by the Teaching Change Framework and Bloom's Taxonomy respectively; and involved a lot of communication, critical thinking, creativity and collaboration.

At the commencement of the tasks (pre-task), learners were briefed about the individual tasks so that they could identify their preferred topics. Then, they chose the topics according to interest and experience. They were briefed about how they would go about these tasks and what each topic entailed in terms of what they knew, what they needed to know, that is, teacher expectations and what tools were required to acquire what they didn't know (teacher concept/learner concept). This took place during the PSE 7208, that is, Environmental and Health Psychology and PSE 7202, that is, Psychological Testing and Educational Assessment lectures. Unlike before, at this stage, a discussion took place between the lecturer and the learners about the topics/tasks. This implies adaptation had to first be achieved before they worked on their tasks. In the meantime, learners used the WhatsApp platform to pose questions to the lecturer and fellow learners for purposes of clarification. Task presentations were scheduled to take place starting within a week. They were required to make their

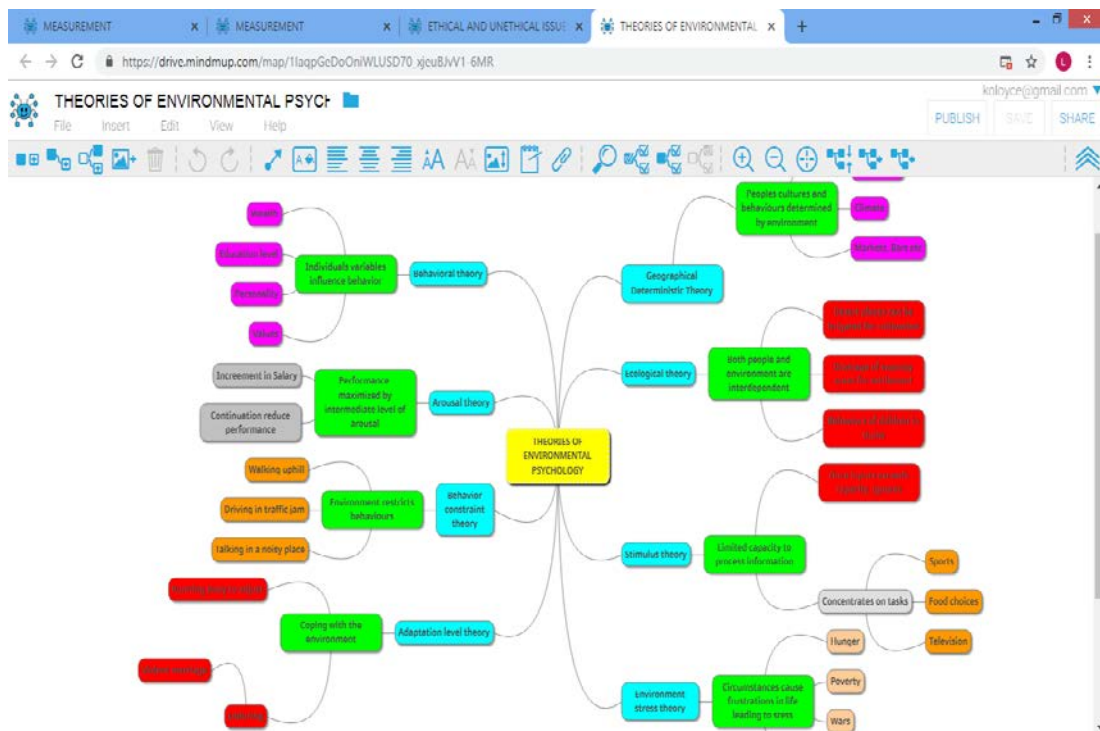
task presentations using Google Slides while engagements and discussions continued on the class WhatsApp group, named M.ed Psychology 2018/2019 academic year. They were cautioned about plagiarism in their detailed write up and informed about how their work was to be subjected to anti-plagiarism check using Turnitin software in an effort to encourage them to produce original work.

4. Results

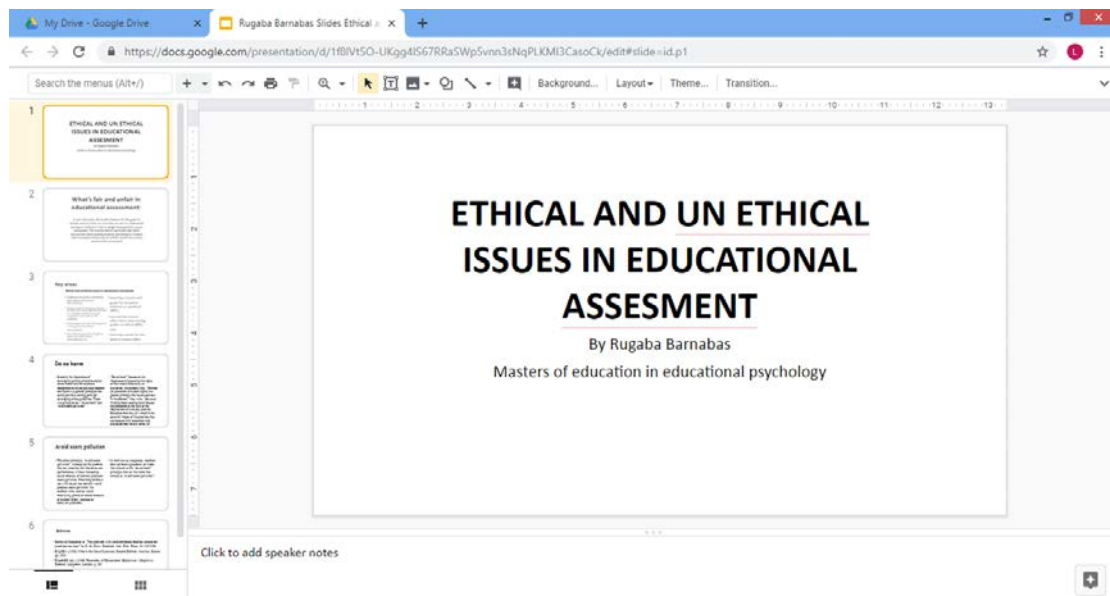
On day one of the task presentations, one graduate learner A presented the theories of Environmental Psychology. The EdTech tool he used was Google Slides. This involved first and foremost defining Environmental Psychology before embarking on its theories, but because he aimed at higher order thinking, he didn't dwell on the definition. In his approach, he analysed and evaluated these theories; and created new concepts out of these theories. He presented these theories as Environment Stress, Geographical Deterministic, Ecological, Behaviour and Adaptation theories. Through feedback from the lecturer, the Ecological and Geographical Deterministic theories were analytically linked in terms of similarities and differences. More theories emerged out of this interaction, like, the Environment, Arousal, Stimulus Load and Behaviour Constraint theories. Through feedback, the Behaviour Theory was linked to the Behaviour Constraint Theory in terms of elements and theorists. Below is the screen shot of the Google Slides on this task.



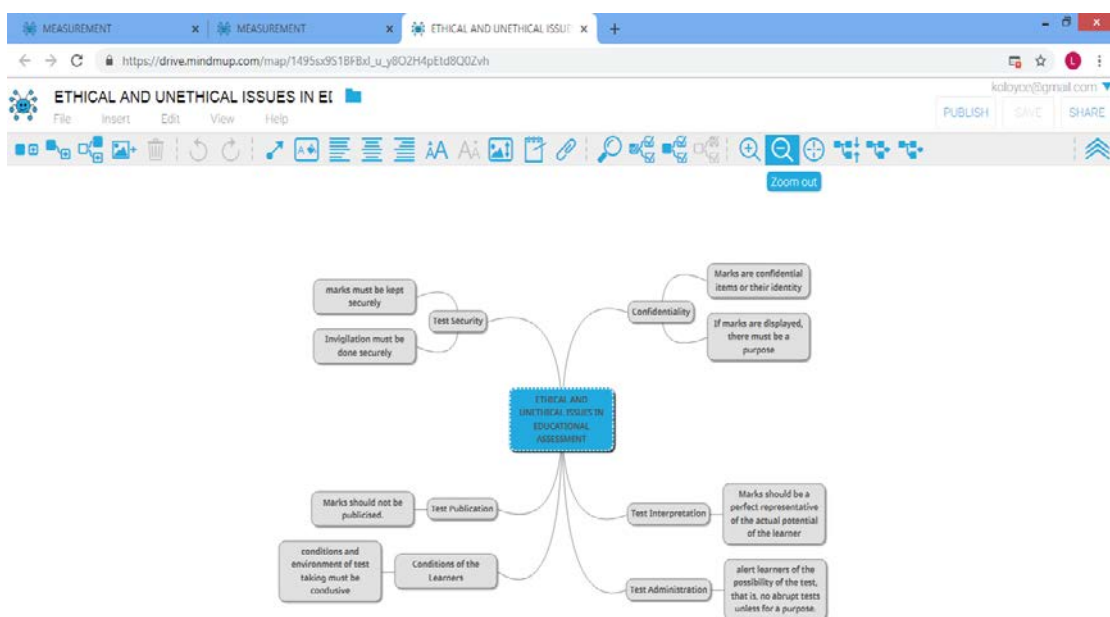
At the end of the presentation, the lecturer carried out a reflective summary of what was discussed and advised the learner to fine tune the Google Slides in terms of content load and alignment; and to create a Mindmap which would be used as a summary and recap of the topic, which he would present during the next lecture. The learner, after several trials and interactions with the lecturer, was able to produce an impressive Mindmap on his topic/task, that is, theories of Environmental Psychology, which was very sufficient in covering all the details on this topic just within one edtech diagram/tool. Below is the screen shot the Mindmap showing the theories of environmental psychology by learner A.



On Day two of task presentations, learner B used Google Slides as an EdTech tool to present and discuss his task on Ethical and Unethical Issues in Educational Assessment under PSE 7202, that is, Psychological Testing and Educational Assessment. At the end of the lesson, he, like learner A, used a Mindmap to conclude his task presentation. The Google Slides, in this particular learning scenario, had an affordance of substitution while the Mindmap had affordances of augmentation, modification and redefinition. Through the Mindmap, the ethical and unethical issues in educational assessment were supplemented, changed without altering with the meaning and re defined in terms of their presence and absence (opposites). The Google Slides were used to present content on ethical and unethical issues while the Mindmap was utilised for looking deeper at these issues beyond their definition and surface meaning into portraying them as opposites and contradictions to one another. What is ethical in educational assessment was presented as what can become unethical through changes and modifications in teacher practices/behaviours, and vice versa. However, this task went through modification because originally, the learner did not seem to present and portray higher order thinking. He merely mentioned and defined the ethical practices/issues but did not venture deep into analysing why teachers end up carrying out these unethical practices, thereby creating the necessary ways in which these practices can be minimised or even avoided. Below is a screen shot of the Google slides that learner B used to explain the ethical and unethical issues in educational assessment.

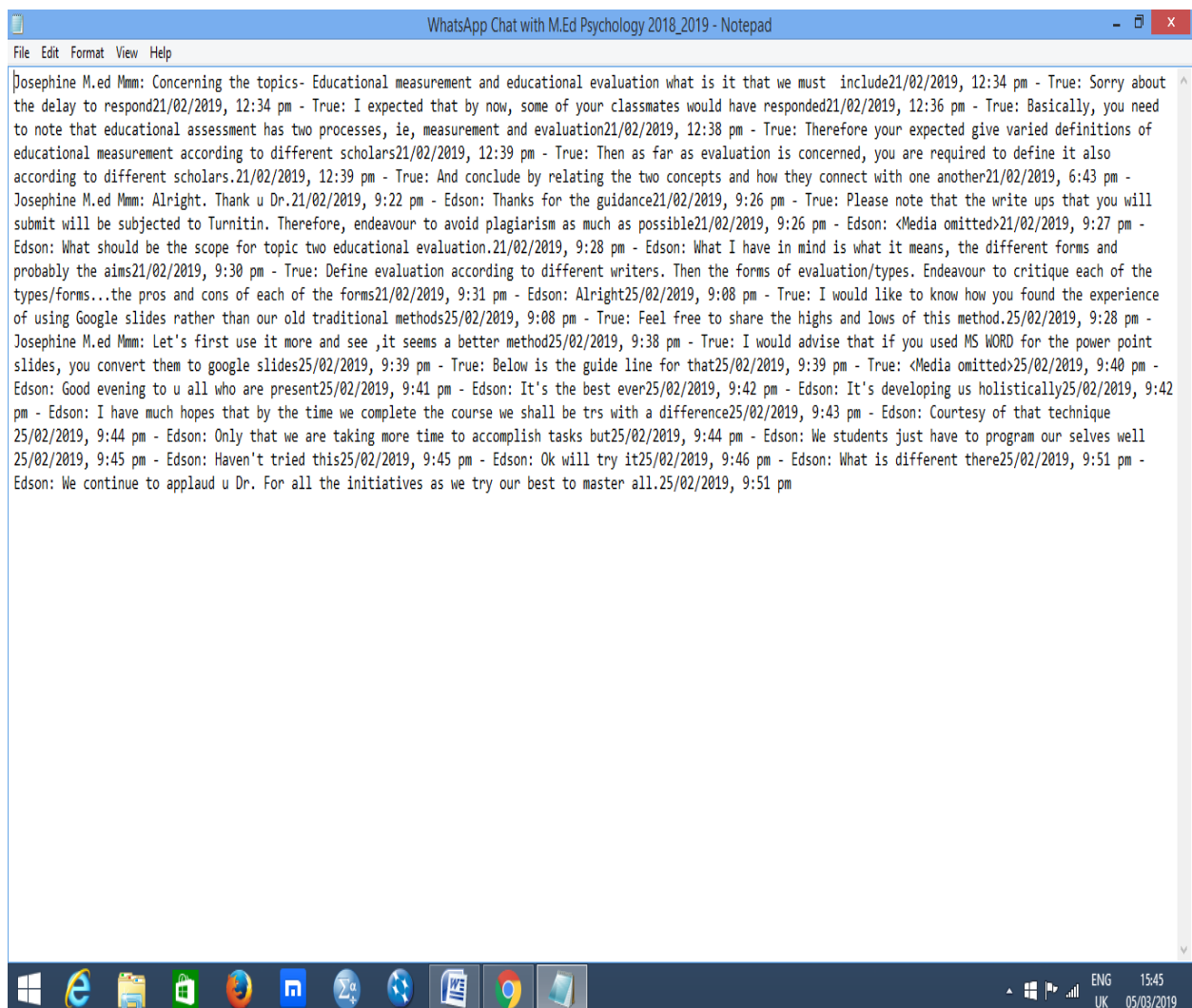


This led to further interaction between the learner, fellow learners and the lecturer to fill in the gaps left by the presenter. Throughout the task presentation, there was continuous interaction between the lecturer and the learner through discussion of the content and how to use the two EdTech tools of Google Slides and Mindmap to achieve a good task presentation. In the long run, learner B was able to analyse, evaluate and create content regarding ethical issues in assessment. Below is the Mindmap learner B used to augment, modify and redefine the ethical and unethical issues in educational assessment. In this case, the Mindmap was used because of its affordances of augmentation, modification and redefinition. Ethical and unethical issues in educational assessment were presented in a more logical and analytical way to show details that were not given when the Google Slides were used.



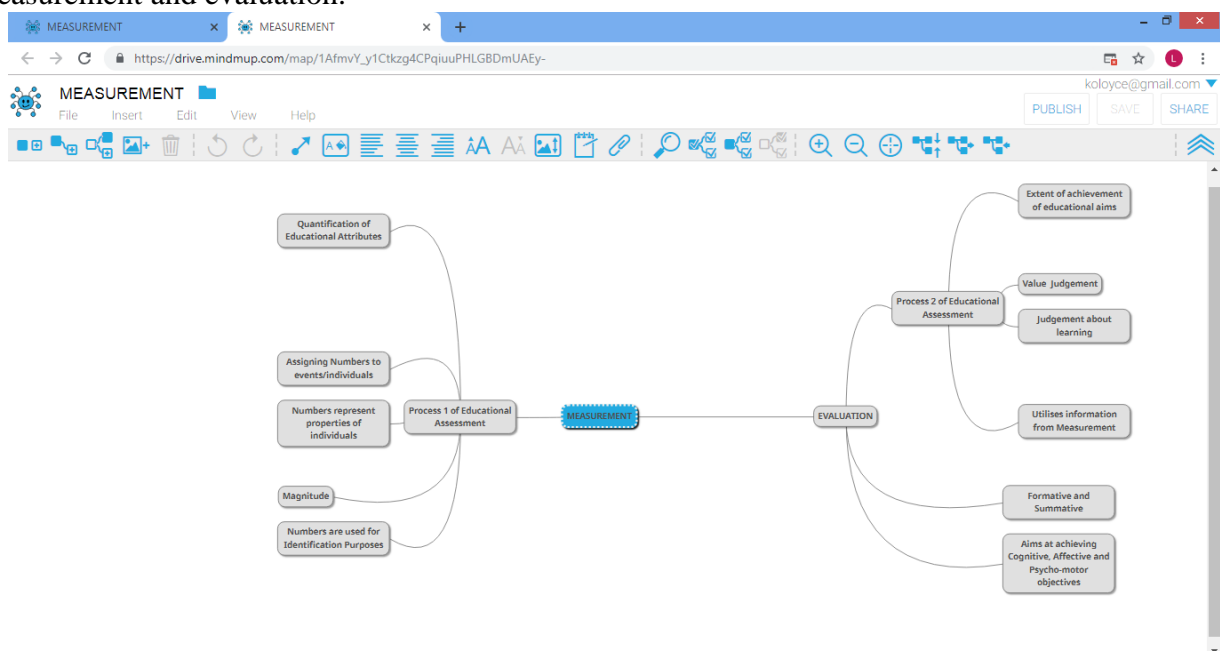
As far as the WhatsApp group named " M.Ed Psychology 2018/2019 academic year" as an EdTech tool was concerned, not all the learners utilised it and this was because not all of them owned

smart phones. Messaging tools such as WhatsApp are evidently becoming useful in facilitating learning [31]. WhatsApp has disadvantages that are technical such as unavailability, congestion, lack of time and optical strain [32]. However, the two graduate students that used it did so to seek adequate clarifications about their tasks. Therefore, the class WhatsApp group as an EdTech tool was used because of its affordances of substitution (in the place of the actual classroom setting) and augmentation (clarification on the not well comprehended material). For example, learner C used this tool to inquire about what she was expected of under her topic of "Measurement and Evaluation," to which she got responses from both the lecturer and fellow learners. Through this, the learner was assisted to analyse what measurement and evaluation in educational assessment are and include, evaluate the commonalities and differences between measurement and evaluation and create a reality that the two practices in educational assessment are the same thing but at different stages/levels, and that actually, evaluation can only take place when a reality or attribute has already been measured. The screen shot below shows the WhatsApp group discussions that took place to clarify one learner C's inquiry on Educational Measurement and Educational Evaluation.



The dynamics of who acted as or played the role of a lecturer during these conversations were apparent. At some point, a fellow learner played this role while responding to his classmate's queries and it was only after this discussion and eventual adaptation to the topic's contents that the learner

was able to come and present this topic to the classroom, after which the lecturer led the reflection which the learner later manifested using the Mindmap as an EdTech tool. Therefore, for learner C, WhatsApp was used because of its affordance of substitution for class room interaction with both teacher and fellow learner and content on measurement and evaluation. A Mindmap with affordances of augmentation and modification as an additional or supplementary style of task presentation. By using these two EdTech tools and their respective affordances, learner C was able to make herself and her classmates analyse the details of measurement and evaluation through presenting the illustrations of the subjects under study and evaluate the circumstances in which teachers find themselves evaluating learners without basing their evaluations on the actual measurement. It was interesting how, through the Mindmap, learner C was able to integrate Bloom's categories of educational assessment objectives, that is, cognitive, affective and psycho-motor objectives/domains, evidence that the topic was driven towards not just understanding what educational measurement and evaluation were but on higher order thinking. For example, a teacher who evaluates a learner as weak after scoring 50 percent in a test might not be a good evaluator. A reality was henceforth created to suggest that for learners or learning to be fairly evaluated, the teacher ought to consider several factors such as previous performance, general performance of other learners and test objectives. Below is the screen shot of the Mindmap that learner C used to present the findings from the class interactions on measurement and evaluation.



The learners were also briefed at the beginning of the tasks that in all they do, they needed to endeavour to avoid plagiarism. It seemed, through the interactions that they didn't exactly grasp what plagiarism is and hence didn't know how to effectively avoid it while working on their respective tasks. This led to the discussion on what the phenomenon of plagiarism is and illustrations on how to avoid it. After submitting their write ups from the tasks, their work was subjected to anti-plagiarism software (Turnitin) and despite the previous discussion and supposed adaptation that resulted, only two learners had their originality reports within the accepted threshold, that is, learner A scored 14% similarity index (86% original work, 0% quoted work) and learner C scored 26% similarity index (74% original work, 0% quoted work). However, learner D's score was 86% (14% original work, 0% quoted work) while that of learner C's was 73% (27 % original work, 0% quoted work), findings that required more training from the lecturer on how to avoid plagiarism in academic writing. Learner D did not participate in actual task-based lectures but submitted his write up for

assessment hence his work too was subjected to the plagiarism test. Below is the screen shot of the plagiarism test results for the learners (learners A, B, C and D respectively)

Plagiarism %:	Original %:	Quoted %:	#Rs total
88	12	0	222
73	0	27	129
26	74	0	157
14	86	0	187
14	86	0	150

Through being taught about plagiarism, the graduate students benefitted from analysing and evaluating what it means, how learners both knowingly and unknowingly practiced and continue to do so, how to avoid it (or at least minimise it) and what plagiarism software scores mean. They were able to then create work that was plagiarism-free through the different techniques given during the discussion, adaptation, interaction and reflections, such as paraphrasing, quoting and acknowledging authors, among others. This tool came with an affordance of modification and redefinition from what was unknowingly and knowingly not theirs to achieve pieces of work that they could confidently call their own.

One major transformation/modification that the use of EdTech tools side by side with the influence of the Laurillard's Conversation Framework, Higher Order Thinking Skills, TPACK Model, Teaching Change Frame and the SAMR Design caused in the use of task-based learning approach was its ability to transcend into a learning approach known active learning/scaffolding. Hitherto the use of EdTech tools, it was merely task assignment and task presentation with very minimal teacher-learner, learner-learner, learner-content and content-content interaction. In the resultant new approach, scaffolding enabled the lecturer and learners (teacher-learner; learner-learner) to act together to enable the latter to achieve learning objectives in order to stretch their learning potential beyond what they could achieve had they worked on the tasks alone [33]. Through scaffolding, learners benefitted from the lecturer's' pedagogical support for growth [34,35] but were also driven towards independence or autonomy. Hence, the use of EdTech tools cemented the learner-centric approach to learning.

5. Reflection

Having been the very first lecture where the learners were using EdTech tools to carry out task presentations, it gave birth to highly interactive lectures characterised by attention and participation from the other learners. It was marked with analysis of the theories of Environmental Psychology, that is, viewing some theories side by side, for example it was noted that the Geographical and Ecological theories sound similar yet are different. Day to day examples were generated to illustrate these theories. The Google Slides were effective in attracting the needed attention, interest and motivation. The feedback from the lecturer encouraged the learners to have brief slides to avoid overcrowding and to carry out re-alignment, hence modification of both the EdTech tool and the content. The lecture was also marked with evaluating, through critiquing the theories of Environmental Psychology by focusing on not only the negative ways through which human beings and the environment influence one another but also the positive attributes of this influence. For example, whereas personal attributes such as wealth under the Behaviour Theory were observed to lead to acts such as land degradation, critics may also argue that people can use this attribute to carry out land reclamation. In terms of content creation, new knowledge was discovered and created by putting special emphasis on a positive and a two-way influence between people and environment.

The second task presentation was done by learner B who had been that student whose performance in tasks was always average in the past. Despite being a physically confident student, sometimes, the work that he produced during task-based learning had not been up to required standard. On this particular task, there was engagement between him and the lecturer; and between him and the fellow learners. At the beginning of the task (pre-task), the lecturer briefed him on what is expected of him under ethical issues in educational assessment and after the needed comprehension was achieved and he had adapted, he embarked on the task. A reflection was done by the lecturer after the Mindmap had been presented and discussed as a concluding tool for the task topic. According to learner B, the use of the Google Slides and Mindmap was *"interesting and a bit challenging in a very interesting way."*

Whereas the I expected WhatsApp group platform as an EdTech tool to be very interactive and to foster discussion between the learners and I, it was a bit demoralising. I can say it was only two students (learners A and C) who utilised and benefitted from it and still this benefit was not exhaustive. The other two students (learners B and D) didn't participate because of non-payment of social media tax (accessibility and affordability issues) and lack of a smart phone respectively. The former claimed he didn't have money to pay for social media access (yes, in Uganda, social media accessibility was taxed then) while the latter actually did not own a smart phone at the time. Therefore, the main issue with using WhasApp as an EdTech tool was lack of availability/accessibility and low usability.

As far as Turnitin as an anti-plagiarism software was concerned, it was unfortunate that the software was not as readily available as I expected. I had to seek the assistance of a colleague to help me measure the level of originality of my students' work. Then, there was a challenge of how to save the measures, sending them to me and incorporating them into this report. This was time consuming and straining. This could also mean that as post graduate lecturers, we might need this software ourselves provided by the Makerere University to be able to avoid plagiarism ourselves and the students whose work we are reading and supervising. Makerere University also needs to allow us as staff to have access to such software for both staff members and students since it is an expensive one to acquire on individual basis. This project, right from the proposal and problem statement stage, was a positive challenge to me. It took me back to the drawing board of thinking, analysing and even creating. Having used the task-based learning approach for over ten years on graduate learners

pursuing a Master of Education in Educational Psychology, it has always been a challenge to find models that I could integrate into this approach to motivate learners to find interest, motivation, autonomy and maximum participation in their tasks which would in the long run improve their academic performance. Coupled with the renewed academic energy among learners, it cannot be denied that the new approach of integrating EdTech tools and the related learning models into their task based learning approach came with some challenges. At the beginning of the task, there was a general reluctance among the learners about the use of these new and unfamiliar tools which they perceived as adding onto their already existing hectic academic load. It was only during the practical trials that their interest increased. To solve this problem, I made this a joint task, where together with them, I would make trials during the class to encourage them. I was not embarrassed to show them that I myself was learning how to perfectly use these tools. Currently, although the tasks have been completed, I have observed that they have not stopped using these tools and they are still sending in work on more task topics using Google Slides and Mindmups.

When the WhatsApp group was identified as one of the EdTech tools that would be used for interaction between the lecturer and learners, and between learners themselves, there was a tendency for the learners to send the teacher private inbox consultations on their task topics rather than use the WhatsApp group platform. This was solved by advising the learners to use the group page. It should also be noted that not all the learners owned smart phones to be able to benefit from this tool. Two out of four learners were not active on the class chat group for two reasons; one did not own a smart phone and the other claimed social media tax was too high for him. The other two that used the class chat group did not use it maximally. Therefore, this is not a tool that helped the learners as they pursued their tasks. The learners did not have Gmail accounts and yet they needed them to use these tools. All of them were to open Gmail accounts henceforth. The other struggles were personal to me as a lecturer. I had to learn to re-use the tools before and during the tasks themselves. I had to learn to take and save screen shots on the computer in order to attach them to the report. One of the students did not own a computer and because of that, despite the fact that he had earlier worked on and submitted his task using the EdTech tools by email, he brought hard copy tasks to class for discussion. With time and with a computer available to him, it is hoped that he will improve on that.

6. Discussion

The project on the navigating the importance of educational technology tools in enhancing and transforming task-based learning method was aimed at establishing and analysing the use of such tools to improve students' interest, motivation, participation and academic performance while improving the interaction between the learners and the teacher/lecturer. It was observed that EdTech tools are not only a necessary but also an innovative addition into effective teaching and learning. It was very evident that the learners enjoyed the new method of using educational technology to improve their interest, motivation, participation, performance and originality through the use of Google Slides, Mindmups, WhatsApp group and Turnitin tools. It was refreshing to discover that these EdTech tools could be used to achieve higher order thinking since the learners could analyse, evaluate and create rather than merely recalling, understanding and applying the realities within their tasks. The EdTech tools, in their own respective functions had affordances of substitution (Google Slides, Mindmups), augmentation (Mindmups, WhatsApp), modification (Mindmups, Turnitin) and redefinition (Mindmups, Turnitin). Therefore, the different EdTech tools played complementary roles as they glued to one another to achieve the objective of the intervention. This also enabled the teaching and learning under task-based approach to move away from teacher centric/low use of technology (Quadrant A) to learner centric/high use of technology (Quadrant C) where teaching and learning moved from transmission to transformation [11] and a whole new transformation from task-

based learning approach to in active learning through scaffolding. Intentionally scaffolding the integration of EdTech tools, Bloom's Higher Order Thinking Skills, applying the TPACK Model, jointly and successfully drive the movement from traditional to effective teaching [11].

7. Conclusion

Because of this use of EdTech tools of Google slides, Mindmups, WhatsApp group chat platform and Turnitin, with their respective affordances and the transformation from task-based learning approach to active learning, it can be concluded that interest in individual tasks was improved, motivation to take on and present their tasks was increased, learner participation increased, Edtech tools were embraced and used, teacher participation was regulated greatly, learner dependency transcended into learner autonomy, teaching and learning became more interactive/a conversation, higher order thinking skills were achieved rather than lower order ones and originality in tasks was encouraged and improved. It cannot be ignored that after using the different EdTech tools in the task based learning approach, the whole teaching and learning process transformed into active learning/scaffolding. The final product was a change from teacher-centric /low use of technology to learner centric (learner autonomy)/high use of technology, adequate teacher/learner interaction, reflections at different stages of task presentation and discussion, focus on and achievement of higher order thinking skills, and substitution, augmentation, modification and redefinition affordances by the four EdTech tools. Some questions need to be asked as far as the use of EdTech tools in enhancing the effectiveness of task-based learning approach among graduate students pursuing Master of Education in Educational Psychology and these are; are the tools available, accessible, usable, dependable and universal? More importantly, are these tools complementary to one another in terms of their affordances, and do they provide solutions to the teaching and learning problems/challenges in order to achieve the respective teaching and learning objectives?

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