ANALYSING THE TEACHING EXPERIENCES OF INSTRUCTORS USING ITUNESU WHEN TEACHING FOUNDATION MATH 020 CLASSES

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Abstract

This research investigates the experiences of instructors using iTunesU when teaching a Foundation Math course (MATH 020). This course is the second of two Math courses in the New Foundations Studies Program running in the Higher Colleges of Technology (HCT). It focuses on the use of prior foundational knowledge to develop understanding and proficiency in the use and application of mathematical skills and concepts. A phenomenological approach has been chosen to help understand and explore the qualitatively different ways in which particular instructors experience the use of iTunesU as a course management tool. Two specific questions were considered: (1) “How did tutors experience the use of iTunesU in teaching MATH 020 classes?” (2) “What values, if any, have been derived from using this tool in teaching MATH 020 classes?” Three course instructors were identified and selected for the interview process. Data collection in this study was conducted using a digitally-recorded unstructured interview, which allowed the participants to fully voice their experiences. The data explicitation process resulted in creating a number of themes. A list of similar themes was then grouped together to form five central themes representing the essence of the original ones. The central themes were: (1) to foster ubiquitous learning; (2) to encourage students' participation; (3) to foster independent learning; (4) to manage instructors' workload; and (5) To provide a repository for the entire course. This was followed by a discussion of the opportunities and challenges arising from using iTunesU in the given classroom, as well as the description of the limitations within this study.

Keywords: learning management tools; mobile learning; phenomenological approach; Interactive learning; course repository tools, iTunesU.

1 INTRODUCTION

Today’s educators are under increasing pressure to enrich students’ learning. One approach to improvement is to enhance the instructional practices of pedagogues. Therefore, educational institutions have continuously adopted strategies they believe would positively impact the teaching and learning experience. This includes the use of different types of new technologies like iPads and other tablets. Today, these portable devices are considered by many educators to be an important tool that helps enrich the classroom learning experience [1].

The Higher Colleges of Technology (HCT) is among the first and largest adopters of using iPads in the classroom in the United Arab Emirates (UAE). All colleges in the HCT system, including Abu Dhabi Women’s College (ADWC), were strongly encouraged to introduce iPad applications to Foundation courses starting from the fall semester of 2012. This led to a reconsideration of educational methodologies in terms of the use of time, place, resources, roles, activities and assessments based on a system-wide policy review.

iTunesU is one of the conventional iPad applications utilized to create and use different types of interactive learning materials. According to Çelik, et al. [2], many educational institutions collaborate through iTunesU to support learning communities by preparing and publishing electronic course materials in a variety of formats. As such, it is considered by ADWC as one of the major tools used throughout the Foundation courses. This study focuses on one particular course, namely MATH 020, where iTunesU has been broadly used with one hundred eighty-five students that were distributed in ten different sections.

The intention of this study is to explore the use of the chosen research method. Therefore, the paper will focus from a methodological perspective, rather more than might normally be the case for a content perspective.
2 METHODOLOGY

This study followed a phenomenological approach, with the aim of answering two questions. The first was about the instructors’ experiences in using iTunesU in teaching MATH 020 classes, and the second was about the value derived from using this tool in teaching this course, if any. This approach has been chosen to help in understanding and exploring the qualitatively different ways in which particular instructors experience the use of iTunesU as a course management tool in teaching MATH 020.

The phenomenological interviews were designed to bring forth the interviewees awareness of the phenomenon under investigation [3, 4]. Interviews were unstructured and open-ended which allowed the participants to fully voice their experiences in using iTunesU in teaching the MATH 020. Data collection in this study relied on digitally-recorded unstructured in-depth interviews. Instructors had the chance to describe and explain their experiences and discuss their points of view in depth.

Interviews lasted 35 to 45 minutes each. At the beginning of each interview, participants were asked some questions related to their previous experience and the number of times they used the iTunesU application for teaching the course. Following that, the interview started by asking the participants to relate their experiences in using iTunesU application.

This semester, four MATH instructors were teaching MATH 020 on campus. Three of which were full-time faculty members, and the last was an adjunct. The full-time MATH instructors were chosen to participate in the study while the adjunct was excluded based on the fact that she had not taught this particular course before and would have no point of reference for comparison. Hence, only three MATH instructors participated in this study.

All participants had taught the course before without the use of the iTunesU application. Two of them had used iTunesU once before to teach the same course, and the third used it for the first time this semester. The characteristics of the interviewees sample are presented in Table 1.

<table>
<thead>
<tr>
<th>Teaching experience</th>
<th>Gender</th>
<th>N1a</th>
<th>N2b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant-A</td>
<td>22 years</td>
<td>Female</td>
<td>10 times</td>
</tr>
<tr>
<td>Participant-B</td>
<td>30 years</td>
<td>Female</td>
<td>28 times</td>
</tr>
<tr>
<td>Participant-C</td>
<td>20 years</td>
<td>Male</td>
<td>4 times</td>
</tr>
</tbody>
</table>

a N1: Number of times teaching this course before
b N2: Number of times teaching this course using iTunesU (including this semester)

3 THE DATA COLLECTION METHOD

Creswell’s visual model of the coding process in qualitative research [5] was followed. Consequently, the following steps were taken to examine the data:

1 Data was collected through a number of unstructured interviews. This type of interview was chosen to make sure that the researcher doesn’t unintentionally “lead the participants" instead of instead of “directing the participants” [6].

2 The digital recordings of the interviews were then fully transcribed in preparation for data analysis.

3 The transcriptions were prepared in a way where a large margin was kept to the right side of the transcription page so that it was easy to annotate the units of relevant meaning [7].

3.1 Data Storing Method

After getting a permission from the interviewees, the interviews were digitally-recorded. The audio recordings were then listened to prudently to reflect on what had been discussed during the interviews. The recordings helped the researcher to follow up the ideas discussed, probe responses and investigate the motives and the feelings of the participants. As indicated in the informed consent forms, the researcher is the only one who is able to review and analyse the audio recordings. As per
the conditions of the consent form, all digital recordings are kept with the researcher and will be destroyed after two years. Each interview recording was given an ID number; for example, “Participant-A, Jan 1 2017” for file management purposes.

3.2 The Interview Setting

According to Miles and Huberman [8] and Caelli [9], it is essential to make sure that the data is unaffected, to the highest degree possible, from any of the researcher’s bias. Hence, the interview setting was designed as scrupulously as possible. The researcher remained neutral and avoided guiding the participant to answers both intentionally and unintentionally. Both references above stated that the interview setting in the research process should be very clear and organized. Accordingly, a file with a section for each interview was set up with the following components:

1. Copies of the informed consent forms that were signed by the participants.
2. Notes made by the interviewer during each one of the interviews.
3. Explanatory diagrams sketched by some participate during the interview.
4. Transcripts of the interviews.
5. Notes made during data analysis of the transcript for each interview.
6. A digital copy of the audio recordings for each interview.

4 THE EXPLICITATION OF THE DATA

In order to add rigor and insight to the exploration of the data, Hycner’s recommendations [7] were followed. In his paper, he advises that an explicitation of data versus an analysis is necessary in a phenomenological research. The reason being that the word analysis implies breaking something into parts and consequently a loss of the whole phenomena, while explicitation looks at all the constitutes of the phenomena, keeping the whole in context [10]. Accordingly, six explicitation steps were applied:

4.1 Bracketing and phenomenological reduction

Judgment of the data in this study was reserved to allow for the phenomena to emerge fully and holistically from the interviews. This was done based on the advice of Tufford and Newman [11] who define bracketing as a method used to mitigate the potential negative effects of the researcher’s presumptions which are related to the study, and as a result, increase the rigor of the project. Taking this into consideration helps to get the “pure” phenomena from the users’ point of view, suspending judgment about the natural world [10]. Thus, the data collected was carefully bracketed.

4.2 Listening to the interview repeatedly for a holistic sense of the phenomenon

According to Creswell [5] and Hycner [7], the interviews in this research were listened to repeatedly to allow the researcher to develop a holistic sense of the phenomenon. In addition, Creswell [5] stated that there is a need to read through the data in order to obtain a general sense of the material. Hence, the transcripts were scrutinized carefully three times. Special attention was given to the non-verbal and para-linguistic levels of communication. For instance, the way participants were using tones, stresses and pauses.

4.3 Delineating units of meaning

When the stage of delineation was reached, the data was examined and a considerable amount of judgment calls were made. At the same time, all assumptions were consciously bracketed to avoid unfitting subjective judgment. This was accomplished by considering the literal meaning and the number of times a meaning was mentioned in the data as well as by picking up the essence of the meaning expressed in words, phrases, sentences, paragraphs, and non-verbal or para-linguistic cues during the interview [7].

4.4 Clustering of the codes (relevant units of meaning) to form themes

At this point of the process, assumptions continued to be bracketed in order to remain true to the phenomenon. Further to that and based on Creswell’s recommendation, the entire transcript was
“Coding is the process of segmenting and labelling text to form descriptions and broad themes in the data” [5]. Hycner [7] refers to these codes as units of relevant meaning. A list of code words was created, and similar codes were grouped together and the redundant codes were recognized. A list of the developed themes is exhibited in Table 2: Subsequently, the list of codes was reduced to a smaller, more manageable number from which themes were extracted. Upon closer scrutiny of the themes, it was noted that some themes overlapped which can be expected as this is the nature of human phenomena. Consequently, clusters of themes were congregated together creating what Hycner [7] terms as central themes expressing the essence of these themes. The units of relevant meanings, the themes, and the developed central themes are presented in Figure 1 in the next page where the black boxes at the top of the diagram contain the central themes, the bolded headings at the top of each white box represent the themes, and the points listed under each one of these headings represent the units of meanings.

### Table 2. Units of Relevant Meanings and the Developed Themes

<table>
<thead>
<tr>
<th>Units of Relevant Meaning</th>
<th>Clusters of Units of Relevant Meaning (Themes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• &quot;everything is in one place&quot;</td>
<td>1) Allows students to learn from anywhere at any time</td>
</tr>
<tr>
<td>• &quot;you can access all the material&quot;</td>
<td></td>
</tr>
<tr>
<td>• &quot;enable the students to learn from anywhere&quot;</td>
<td></td>
</tr>
<tr>
<td>• &quot;they can work offline&quot;</td>
<td></td>
</tr>
<tr>
<td>• &quot;you don’t need an internet access anymore&quot;</td>
<td></td>
</tr>
<tr>
<td>• &quot;became too lax about being absent&quot;</td>
<td>2) Reduced interest in class attendance</td>
</tr>
<tr>
<td>• &quot;more dependent on videos. &quot;</td>
<td></td>
</tr>
<tr>
<td>• &quot;students lose interest&quot;</td>
<td></td>
</tr>
<tr>
<td>• &quot;encourages some of them to contribute more&quot;</td>
<td>3) Encourages student contribution</td>
</tr>
<tr>
<td>• &quot;they feel it’s easier&quot;</td>
<td></td>
</tr>
<tr>
<td>• &quot;can project their work to others”&quot;</td>
<td></td>
</tr>
<tr>
<td>• &quot;they are finding these videos helpful&quot;</td>
<td></td>
</tr>
<tr>
<td>• &quot;the video becomes longer&quot;</td>
<td>4) Challenges in creating videos explaining higher mathematical concepts</td>
</tr>
<tr>
<td>• &quot;students lose interest&quot;</td>
<td></td>
</tr>
<tr>
<td>• &quot;the video becomes boring&quot;</td>
<td></td>
</tr>
<tr>
<td>• &quot;forces them to be independent&quot;</td>
<td>5) Helps students to become self-dependent</td>
</tr>
<tr>
<td>• &quot;a great way to push them to be independent&quot;</td>
<td></td>
</tr>
<tr>
<td>• &quot;students should be independent learners to start with&quot;</td>
<td>6) Requires students to be independent</td>
</tr>
<tr>
<td>• &quot;they have to do at home, if not, the whole thing won’t work&quot;</td>
<td></td>
</tr>
<tr>
<td>• &quot;saving time&quot;</td>
<td>7) Allows instructors to have more time for other activities</td>
</tr>
<tr>
<td>• &quot;giving more time for preparing the materials than for teaching&quot;</td>
<td></td>
</tr>
<tr>
<td>• &quot;takes long time&quot;</td>
<td>8) Needs a great amount of time at the beginning</td>
</tr>
<tr>
<td>• &quot;takes 2 to 3 hours to produce a short video&quot;</td>
<td></td>
</tr>
<tr>
<td>• &quot;18 hours a day ‘working hours’“</td>
<td></td>
</tr>
<tr>
<td>• &quot;you can put all kinds of files in one place&quot;</td>
<td>9) Store different kinds of materials</td>
</tr>
<tr>
<td>• &quot;audios, videos, pdfs, apps in one place&quot;</td>
<td></td>
</tr>
<tr>
<td>• &quot;Not able to copy a book from one account to another&quot;</td>
<td>10) Limited collaboration capabilities</td>
</tr>
<tr>
<td>• &quot;I have to create the book all over again&quot;</td>
<td></td>
</tr>
<tr>
<td>• &quot;Cannot put the materials in the order you want&quot;</td>
<td>11) Immature File management capabilities</td>
</tr>
<tr>
<td>• &quot;It takes forever to move them&quot;</td>
<td></td>
</tr>
<tr>
<td>• &quot;No file management system&quot;</td>
<td></td>
</tr>
<tr>
<td>• &quot;The file system is not easy&quot;</td>
<td></td>
</tr>
<tr>
<td>• &quot;I can create up to 12 courses per account&quot;</td>
<td>12) Limited number of courses and students</td>
</tr>
<tr>
<td>• &quot;The max number of students is 50 per course&quot;</td>
<td></td>
</tr>
</tbody>
</table>
4.5 Summarizing each interview and identifying the critical segments of the text

A summary of each individual interview was prepared. Each one of these summaries was then examined again to find the critical segments of text. The critical segments of text are the ones that provide a clear description of situations in which the participants have experienced the phenomenon of using iTunesU. The critical segments were then included under each one of the themes that have emerged from the transcripts. This served to reconstruct the participants’ inner world of experience. Ellenberger elaborates on this as the following:

“Whatever the method used for a phenomenological analysis the aim of the investigator is the reconstruction of the inner world of experience of the subject. Each individual has his own way of experiencing temporality, spatiality, materiality, but each of these coordinates must be understood in relation to the others and to the total inner ‘world’” (as cited in [7], p. 291).

4.6 Distinguishing general and unique themes for all the interviews

Following Hycner’s recommended list of steps describing the phenomenological analysis of interview data, themes that are common to most or all the interviews were identified. Subsequently, themes that are unique to a single interview were also noted. Finally, general and unique themes were placed back into the overall context from which they emerged [7].

5 RESULTS

As a result of following the steps in the data collection and explicitation process, the qualitatively different central themes below had emerged:

1. To foster ubiquitous learning
2. To encourage students’ participation
3. To foster independent learning
4. To manage instructors’ workload
5 To provide a repository for the entire course

These central themes are described in more details below:

5.1 Central Theme 1: iTunesU as an instrument that fosters ubiquitous learning

Yahya, et al. [12] stated that ubiquitous learning, also known as u-learning, is based on ubiquitous technology. It facilitates the construction of a ubiquitous learning environment, which enables people to learn from anywhere at any time. In the context of this study, the emphasis of ubiquitous learning is on accessing educational material. Participants expressed that the high availability of educational material is helpful for both students and instructors as is clear in Participant-A’s comment:

“Working in class and having all the documents with the students in one place is very good. And for the teacher as well, you can carry only the iPad or whatever mobile device you have and you will have everything there if you have already organized your work on your book properly.” … (Participant-A)

They also commented on the advantage of iTunesU in comparison to other internet-based solutions claiming that iTunesU enables them to access materials without the need for an Internet Connection. This was evident by the following comments made in the interviews.

“The other advantage is that once students download the materials, they can work offline. They don’t need an internet connection which is very important. In iTunes U, once you download the file, you can open it later on without an internet connection. So, for example, if a student was absent for some reason, they have in advance all the materials on a timeline based where they can find on this week we need to cover this one, we have to watch this video, we have to finish this worksheet” …(Participant-C)

“Everything is in one place. Wherever they are, they can access all the materials” … (Participant-A)

Yeah. I believe that the main reason we use iTunes U through iPads is to enable the students to learn from anywhere. They can be working at home and I can see what they are doing. If that have questions, they can post their question and then we can discuss… (Participant-A)

“If I put materials in BB Learn for example, or I am using you tube to put videos, students need Internet access in order to access these materials. In iTunes U, it is a different thing. Once you download the material, you do it once and that’s it, you don’t need internet access any more”. … (Participant-B)

Although there seems to be concrete evidence that iTunesU fosters ubiquitous learning, there was an instance in the data that shows that it has possible negative effects with certain students as it allows them to rely on the fact that the materials are available at all times and thus, they don’t apply themselves fully in class at all times.

“It all depends on the type of students you are teaching. Some of them became too lax about being absent depending on the fact that they can find the materials at any time they want. This stops them from getting the advantage of attending some classes” … (Participant-B)

5.2 Central Theme 2: iTunesU as a medium that encourage students’ participation

Some of the participants see iTunesU as a medium that stimulates and encourages student participation. It was stated that this is because the activities and videos are both visually stimulating and absorbing. Students also learn at their own pace, concentrating on their own progress, and are not intimidated by the progress of other students. Participants also added that students liked sharing their work and getting instant feedback from both their peers and instructor. This was obvious in some of the participants’ comments:

“It encourages some of them to contribute more. The good thing is the individualized learning which is a very good thing. They have the material; they can ask anytime. I think
they like it now. They feel it is easier now. They can repeat the video as many times as they want.” ... (Participant-C)

“[...] with iPads, not necessarily iTunes, they can project their work to others directly [...] for example, I tell Mariam: Project your work. She can directly connect through the apple TV, and others can see her work” ... (Participant-A)

“But students are finding these videos helpful [...] Working in class and having all the documents with the students in one place encourages them. [...] they can carry only the iPad or whatever mobile device they have and they will have everything there.” ... (Participant-A)

On the other hand, some participants claimed that the videos were not suited to demonstrate the higher level Mathematical concepts, and only suited the delivery of the lower-level concepts. This is because some participants believe that long videos result in students losing their focus and interest.

“We were discussing the issue of having more complex concepts explained in a video. We don’t think that complex concepts can be explained in 2, 3 minutes’ video. It needs more time, and we are afraid that the video becomes longer and the students lose interest and the video becomes boring” ... (Participant-A)

“Which means that the videos cannot cover everything in the higher level MATH course. But in this lower level courses, we can implement this easily.” ... (Participant-A)

5.3 Central theme 3: iTunesU as a vehicle to foster independent learning

This theme entertains the possibility of using iTunesU as a vehicle that fosters independent learning among students. The collected data shows that some students in ADWC have difficulty making the transition from their traditional school experience to the more independent learning environment at their college. Some participants see the use of iTunesU as a way to shift students’ focus from depending on the instructor and face-to-face teaching to a new state where they become self-dependent. Participant-C commented:

“Actually, it forces them to be independent. At the beginning, there was a big resistance to using the tool. This is not the way we’re learning; we cannot do it. You are our teacher; you have to teach us. In the 2nd semester (this one), the story is totally different” ... (Participant-C)

“Yes because last semester they were taking MATH 1 using iTunes U, and now they are taking MATH 2 that is a different course. They know now what they have to do. So it was in a way a great help for us to push them to be independent” ... (Participant-C)

On the other hand, participants also believe that studying MATH 020 using iTunesU will not be fruitful unless students already have acquired the ability to be independent learners, and those who lack this skill will be greatly disadvantaged. This is clear in the following participants’ comments:

“...This depends on the type of students you have and how independent learners they are. This is very important. If you want to go fully with iPads and iTunesU, students should be independent learners to start with.” ... (Participant-A)

“The problem is that they come to us after 12 or 13 years of schooling where independent learning didn’t really happen.” ... (Participant-A)

5.4 Central theme 4: iTunesU as a workload management tool for teachers

The data collected indicated that iTunesU allowed the instructors the flexibility of directing students each at their own pace to understand, practice, and implement the materials, allowing instructors to spend their time to interact more with weaker students. Additionally, it allows them to finish the core material earlier and have more time to spend in creating and putting into operation better-quality projects, and recycle the core concepts through creative activities. This was evident by the following comments made by Participant-C:

“It saves time in teaching. Last semester, some units needed 7 weeks to teach using the traditional way. We can finish it now in 3 weeks. However, this depends on that the students follow the guidance. That saving time means that they have more time for
practicing. [...] and previously, this wasn’t possible at all because we were busy in the face-to-face teaching that took longer time” (Participant-C)

“We try to prepare our students to be more independent without taking the load from the teachers to focus more on flipping the courses and the teaching, giving more time for preparing the materials than for teaching. [...] It saved a lot of time” ... (Participant-C)

On the other hand, instructors had to invest a great amount of time at the beginning of the semester in getting trained in how to use iTunesU, as well as preparing and uploading the created materials. This was evident by the following comments made in the interviews.

“I would say that it takes a long time, but this is for the first time only. Once you have the material, you can create any assignment, any course, any time very easily. Because you have the bulk material there.” (Participant-C)

“Sometimes it takes 2 to 3 hours to produce a video that lasts for 2 minutes” (Participant-A)

“Last semester when we taught the course, there was 4 of us teaching the course. We were trying and we were all working more than hard. Like it was like Hell, we’re talking 18 hours a day ‘working hours’. That was last semester. This semester is easier. Every one of us was preparing his/her own book and using it with our students. Each one of us was preparing 6 books” (Participant-B)

5.5 Central theme 5: iTunesU as a repository system for the entire course

The data investigation shows that all participants saw iTunesU as a repository where instructors can store different kinds of materials in one place. The kinds of materials they listed were PDF files, audios, videos, and iPad applications. Participant-C gave the following comment:

“It saves a lot of time. And the main advantage of iTunes U is that you have one place where you can put all kinds of files, audios, videos, pdfs, and apps in one place. This is one of the main advantages of using iTunes U” ... (Participant-C)

While some of the comments showed that instructors feel the need for some enhancement in the collaborative capabilities of the application such as giving the instructors the flexibility of copying books from one account to another. From their point of view, this is needed if an instructor decides to share a book that he or she created with another instructor, as presented by following transcript extracts:

“One of the shortcomings for this, we are not able to copy a book from one account to another, if I create one course for my section, I cannot share it with others” ... (Participant-C)

“I don’t know if they have it outside, but this permission was not given to the college. This said that they are working on having such a thing from iTunes U. which is a drawback from iTunes U. If I want to create another account and put the same book, why should I go back to the beginning and create the book all over again.” ... (Participant-A)

In addition, some participants stated that iTunesU doesn’t allow them to manage the materials by organizing files into folders. They explained that they were forced to store a big number of files in one folder. This made it hard to perform some basic file management tasks such as putting files in a certain order, as evident in some of the participants’ statements:

“I am using a folder structure. But if you put so many documents or videos in one section, it becomes a long list [...] to see so many things is not really very practical.” ... (Participant-A)

“This is because you’re manually moving things from one place to another. There is no way of having a numbering system that sorts them in ascending or descending order.” ... (Participant-B)

“There was no file management system. To solve the problem” ... (Participant-B)

“Organizing the materials. The filing system in the materials itself is not easy. It is not the best thing” ... (Participant-B)
Likewise, the limited number of courses allowed per account, and the limited number of students per course were also seen as confining restrictions as Participant-C stated:

“First you have limited space, limited number of students that you can enrol, and limited number of courses you can create in the personal account. Like in my course, I can create up to 12 courses, and in each course, the maximum number of students is 50 students.” … (Participant-C)

6 GENERAL AND UNIQUE THEMES

In order to identify the commonalities and variations between the experiences of the participants, the researcher looked for the themes that were common for most or all of the interviews, and then the themes that were unique to a single participant were also noted. The findings of this phase of the analysis are presented in Figure 2.

Not all themes were common amongst all participants. The common themes amongst all participants were centred on allowing students to learn from anywhere at any time, and storage capabilities of iTunesU. Additionally, all participants felt that iTunesU capabilities in collaboration, file management and number of courses per account were limited. Likewise, they all sensed that a great amount of time was required at the beginning of their use of iTunesU. Furthermore, Participant-A and Participant-C believed that iTunes U is a tool that encourages students’ participation, and this is considered as a common theme as the number of participants represent the majority that is two thirds of the sample.

On the other hand, some themes were discussed by one participant only. For example, the themes focusing on helping students to become self-dependent and allowing instructors to have more time for other activities were expressed by Participant-C only. Likewise, the challenges in creating video to explain higher mathematical concepts, and related to students becoming more independent were only expressed by participant-A, and these themes are considered unique themes.

7 DISCUSSION

At the end of this study, it became evident from the analysis of the emerged central themes that the use of iTunesU is perceived as presenting both opportunities and challenges. These are presented in table 3.

All Participants were able to identify values and opportunities of using the tool. These values can be summarized as students gaining universal access to learning materials in different formats. Another value is related to saving time of the instructors to work on other activities. This was only valid at the stage when all materials were already prepared and uploaded. These two opportunities are in harmony with the findings of Germany [13] and Walker and Shepard [14] who have studied the effectiveness of using emerging technology in general and iTunesU in particular.
Another value that participants had mentioned in the interviews was related to encouraging student participation, which is in accordance with Germany’s findings which states that iTunesU encourages students participate by using their creativity to make the podcasts fun and interesting [13].

Like any other emerging technology, there are yet challenges to be addressed when it comes to the use of iTunesU. The first challenge participants discussed was the extra time required initially for the preparation of material (PDF files and podcasts). This is common in the implementation of instructional technologies in general, where there is a need for more emphasis on planning and design than implementation [15].

Student self-reliance was also perceived as a challenge in two ways. First, many students came from high schools without preparation to be independent learners. Second, some students became less
motivated about physically attending the class and perceived the podcasts to be a sufficient replacement of physical classroom interactions. The first challenge can be addressed by preparing the students in the classroom to be more independent in their approach to learning. While the second challenge can be addressed by increasing the instructors’ awareness of their changing role. This means that instructors need to make a shift from face-to-face instruction to a new way where they play the role of facilitators. This is expected to keep the students motivated enough to attend the class as they will feel the need for a facilitator in the classroom [16].

Other challenges are perceived as related to the limitation of collaboration between different accounts, as well as the limited number of courses and students per account. The problem could be possibly alleviated by using institutional accounts instead of the personal ones.

It is also important here to acknowledge the limitation of this research represented by the small size of the sample coming from only three instructors, the minimum number recommended by Giorgi [6], who stated that in phenomenological method in human science, it is recommended to use at least three participants. Moreover, much of the research in the field of psychology could be well-managed with a small numbers of participants [17].

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REFERENCES

