ABSTRACT
This case study will outline the e-learning journey at a prominent university in Jamaica for the period 2013-2017. The post-diploma bachelor of pharmacy was changed from face to face to fully online delivery due to dwindling enrolment. This paper outlines the challenges to curriculum implementation faced as well as delivery and assessment issues. The paper provides a summary of strategies that were employed to tackle the challenges that arose in this new paradigm of instruction.

KEYWORDS
E-Learning, Jamaica, Pharmacists

1. INTRODUCTION
The College of Pharmaceutical Sciences at the UNJ, currently offers an online post-diploma bachelor of Pharmacy. This programme was developed to target practicing pharmacists who only had an associate degree but sought to upgrade to an undergraduate degree (Grizzle, 2013). When the requirements changed to a first degree, the University developed an intense one-year full-time completion programme on campus. This was initially met with enthusiasm but the interest dropped tremendously due to waning interest by professionals who needed the flexibility of part-time learning. In an effort to solve those problems the decision was taken to develop this programme to be offered online; this represented the University’s first foray into a fully online programme with plans to convert other degree programmes online. According to Andrade (2016) there was an over 16% increase in the number of online learners over the ten-year period from 2002-2012 in the United States and this increase was as a result of a demand for more flexible education, improving competitiveness and trying to improvement enrolment. Even though the world has made leaps and bounds in online education; Jamaica is a fairly new entrant in the field. This case study will outline some of the challenges and accomplishments over the period 2013-2017 as the University navigated this unchartered territory.

2. BODY OF PAPER
The course development approach for the transformation from face to face to online delivery at UNJ was modeled after the Objectivism philosophy which is what traditional curriculum is developed from (Blundell & Berardi, 2016). Several meetings with relevant stakeholders were held where toolkits for each course were developed. The toolkit was a developmental plan which documented the objectives, content and the
assessment plan for the course and it represented the beginning of the process of transferring the curriculum from face to face to an online mode of delivery.

The first issue to be analysed was the suitability of this programme for online delivery. An online course is defined as a course delivered using the internet with alternative teaching styles implemented to facilitate this (Cuellar, 2002). According to Curtin (as cited by Cuellar, 2002) there are three processes to be observed before making this change; transfer; translation and transformation. In the transfer stage several brainstorming sessions should be held with the relevant stakeholders about the content to be transferred and the vision for this new programme. In this stage the new course is developed with the requisite tools; syllabi and course outlines. In the case of UNJ, sufficient time was not allocated to the transfer stage and certain issues went unresolved; including syllabi discrepancies, disparity in assessment patterns and confusion about responsibilities of lecturers.

The translation stage equates to a pilot of the programme in which students can provide feedback on the new platform and further adjustments made. This was not done in a fulsome way and resulted in multiple challenges in the delivery during the first semester. The transformation stage is the nuts and bolts stage where the individual courses are developed and faculty should receive training in the learning platform to be utilised (Cuellar, 2002); in this case the Learning Management System (LMS). Sufficient training was not given to the lecturers and this contributed to the multiplicity of technical challenges faced by all stakeholders. In the transformation stage, specific resources should be developed to attend to the unique needs of each course. The syllabus was initially transposed to the online arena with minimal changes. According to Cuellar (2002) the syllabus should be adapted to include technical requirements; help desk information; proctor test information and frequently asked questions relating to the technology. Over time some of this information was provided ad-hoc on the course page or via email. Eventually a comprehensive guide with technical requirements was developed which contained most of this information and posted on the LMS.

In relation to this case study, the implemented curriculum was executed through the unit notes, videos and assignments that the students were exposed to. The hidden curriculum was implemented with the students becoming more familiar with online learning through the LMS platform and the software used to conduct the synchronous sessions which was Fuze. Krei, Johnson & Lesbock (2017) postulated that the addition of synchronous sessions can help to increase student outcomes, specifically their grades and motivation level. In the first semester the lecturers were only meeting with the students three (3) times per semester; which proved to be insufficient for instruction; that has since changed to a minimum of six to eight times per semester. The meetings are now designed to be tutorial sessions with students preparing cases prior to the session. These additional meetings with the use of the whiteboard in the synchronous sessions has helped implement the differentiated instruction desired and increased the percentage of students successfully completing each course.

The hidden curriculum also helped to realise the functionalist approach to education that was utilised by the University. The functionalist approach outlines the important role that education plays in socialising students and improving their contribution to nation-building (Barkan, 2013). The curriculum was adapted from the face to face curriculum which is utilised by the on-campus students who are undertaking the four-year bachelor’s degree. The curriculum was not adapted to make up the gap that existed from years of being out of the classroom. In a context in which there were students across different nationalities, ages and gender; the differentiated instruction approach would have been ideal because this would have allowed the lecturers to adjust the content to the various learners, which was not done initially; the curriculum and assessments favoured the Jamaican students and allowances were not made for the students from other nationalities.

The challenges outlined above stemmed from the traditional method that was being utilised; the lecturers were still operating under the objectivist paradigm instead of a constructivist approach (Blundell & Berardi, 2016). The constructivist approach to education postulates that students control their own learning through participation in various activities that require exploring information and finding solutions to given problems and as such this is the ideal design to frame an online programme (Schnolnik, Kol & Abarbanel, 2016).

The pragmatist philosophy of learning, whose main proponent was John Dewey, outlines that students learn best by doing and as such it best undergirds online delivery (Kivinen, Piironen, & Saikkonen, 2016). The programme was not initially framed by this perspective because students were not active in their learning; there was too much emphasis on the idealistic philosophy in which lecturers were providing minimal interaction and not allowing students to construct their own learning. Over time the assessments were adjusted to include presentations and projects which targeted authentic work in the pharmacy world, in
which they were required to work in groups. This change in teaching and assessment led the charge in moving from objectivism to constructivism by helping the learners to construct their own learning and empowered the students to seek knowledge and work at their own pace (Schnolnik, Kol & Abarbanel, 2016).

In online learning, the principle of andragogy should be used to guide the development of the programme. Knowles (as cited in Park, Robinson & Bates, 2016) defines andragogy as self-directed learning that is applicable to adults. The principles of andragogy assume that adults are motivated to learn; have prior experience and are self-directed. The online facilitator should therefore tap into this experience to direct the students learning; a good online course will tap into these experiences and design authentic assessments (Conaway & Zorn-Arnold, 2016). In the initial stages the assessments were directed at the lower level of Blooms’ Taxonomy and as such the assessment concentrated on rote memorization instead of analysis and creation of knowledge (Blundell & Berardi, 2016). To truly get the best out of adult learners the courses should focus on creating a warm environment; setting specific learning objectives and specifically design learning activities that are appropriate for the programme (Park, Robinson & Bates 2016).

The asynchronous interaction via forums, email and chat spaces has also increased over the four-year period. As Whiteside (2015) indicated, social engagement among students is critical for academic success and this is no different in the online arena. In the online environment lecturers need to be engaged in the forum activities; provide probing questions and respond readily to questions posted (Conaway & Zorn-Arnold, 2016). In the first semester the lecturers were not logging on frequently; some not at all, and students’ queries went unanswered and ungraded assessments received limited feedback. As stated by Rhode & Khrisnamaruthi (2016) a structured training programme is required to bridge the gap between online teaching and face to face since most lecturers enter online teaching ill-prepared because they are unaware of what is required. In the case of UNJ the faculty were not exposed to the basic tenets of online teaching which include how to design an online programme; the tools required for success; the assessment strategies for online learning etc. (Rhode & Khrisnamaruthi, 2016).

At the start of second semester tutors were introduced to software that enabled them to record themselves giving their lectures while providing examples on a white-board. This meant that students were able to see demonstrations of how to solve calculation problems and were also given practice worksheets to apply what they were taught. This change in teaching methodology made a significant difference to the students as they were able to download these lectures in both an audio and video format which helped to increase learning.

A semi-structured training was developed and delivered to the lecturers outlining their online responsibilities and significant improvement was seen post training.

After the first two semesters ended the college created the job function of an E-Learning Technologist who was tasked with managing the day to day affairs of the programme. This eased the burden of the programme director and helped the stakeholders with their technical and administrative issues. This new role helped ease the frustration of the stakeholders who appreciated receiving prompt responses to queries and having a liaison with lecturers, the offices of Admissions & Student Financing and technical support on their behalf. A newsletter was then created specifically for this degree and was sent to students several weeks in advance of the upcoming semester; it contained information on how to enroll in courses and provided important dates for the academic year. A pre-semester synchronous orientation session was instituted and this provided the students with critical information about enrolment and other academic issues.

In addition to the newsletter, greater emphasis was placed on providing updated course outlines at the beginning of the system which helped to realise the constructivist approach desired because the students were able to organise their learning and prepare for their classes and assessments (Schnolnik, Kol & Abarbanel, 2016). The lecturers were also encouraged to vary the activities and provide relevant case studies for the students to analyse and discuss during their synchronous session, thereby implementing the andragogy approach which is ideal for adult learners (Park, Robinson & Bates, 2016). The programme itself was changed by adjusting the format from three to five courses per semester with a flexible completion time of two to three years. This reduced course load allowed the students to take greater ownership of the material and apply a pragmatist approach to their learning by having more time to devote to each course.
3. CONCLUSION

As the University seeks to move forward with online delivery a blueprint for future development has to be developed utilizing some of the failures and successes to guide the way. One of the critical elements for the future is the need for training for all stakeholders and the inclusion of experts from other Universities or other countries who have more experience in online delivery. Expertise from curriculum experts with online delivery experience has to be tapped into in order to appropriately transition the curriculum for online delivery and ensure that it is balanced to attract international students. In the future, a true pilot of any new programme will have to be executed to reduce technical and administrative challenges.

The online post-diploma is now in its fourth year and a number of positive changes have been implemented; lecturers are now provided with training before the start of the semester; students are provided with a comprehensive guide to navigating the online system and specifically the system requirements for them to be successful. Each course is also reviewed prior to the start of the semester with the requisite updates made before the students enter the course. The E-Learning technologist has adapted the role of providing administrative and technical assistance which allows the programme director to focus on the academic issues and strengthen the overall programme. There is still room for improvement but the future looks bright for online delivery at UNJ.

REFERENCES


