Report on ICT Integration in the Instructional Design of Online Modules for Lecturers at the School of Education, Kenyatta University

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Background
SchoolNet SA was contracted by the Commonwealth of learning to facilitate two workshops for lecturers from the School of Education at Kenyatta University. The first workshop was described in detail in our previous report. The background provided here is for the second of the two workshops. SchoolNet’s responsibilities were to:

- Develop appropriate training materials for materials development workshop
- Facilitate a five day materials development workshop for 20 staff for 7 interactive online modules at Kenyatta university
- Analyse data and submit a report with a list of participants

Overview of the Course
The course materials for the online instructional design of modules was developed by SchoolNet. The main objectives of this course were:

- What does online learning offer lecturers that they do not already have or require?
- What are lecturers’ primary considerations when designing instruction online?
- What are lecturers’ expectations of an online learning course?
- How would lecturers’ know that their online course is effective?

As per the previous workshop, these materials were also written without the expectations of the School of Education at Kenyatta University (KU) and no context with regard to current practice at KU.

Based on SchoolNet’s experience in the integration of ICT and instructional design, we proposed three modules to be covered during the week with the understanding that the facilitator would amend the programme if the expectations of the University needed more specific assistance.

The course materials are available via the link: https://goo.gl/RHXRG
Overview of the participants

Three lecturers from each of the seven faculties were granted special dispensation to attend the week-long workshop. The lecturers were:

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<thead>
<tr>
<th>Name 1</th>
<th>Name 2</th>
<th>Department</th>
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</thead>
<tbody>
<tr>
<td>1 Dr. Anthony Ireri</td>
<td>Mrs Elizabeth Mutwiri</td>
<td>Educational Psychology</td>
</tr>
<tr>
<td>2 Dr. Catherine Murungi</td>
<td>Dr Hudson Ong’ang’a</td>
<td>Early Childhood Studies</td>
</tr>
<tr>
<td>3 Mrs Beatrice Isanda</td>
<td>Dr George Mathenge</td>
<td>Special Needs Education</td>
</tr>
<tr>
<td>4 Dr Hellen Kiende</td>
<td>Dr Ephantus Kaugi</td>
<td>Educational Management, Policy &amp; Curriculum Studies</td>
</tr>
<tr>
<td>5 Mrs Doris Njoka</td>
<td>Dr Hellen Amunga</td>
<td>Educational Communication &amp; Technology</td>
</tr>
<tr>
<td>6 Dr Paul Wamae</td>
<td>Dr Caroline Mutwiri</td>
<td>Library &amp; Information Science Department</td>
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<tr>
<td>7 Dr Peter Gathara</td>
<td>Dr Rubai Mandela</td>
<td>Educational Foundations</td>
</tr>
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Dr Njihia Mukirae (Educational Management, Policy and Curriculum Studies), Dr Rhoda Gitonga (Digital School) and Mr Assah Mkhaya (E-learning Technical Support) joined the training with the Dean, Prof Fatuma Chege, participating when her time allowed.
The participants included 6 males and 8 females and the distribution was as follows:

![Pie Chart]

Each department selected two faculty members to attend the course. Almost 100% attendance was achieved with three lecturers missing one or two sessions based on their work commitments.

**Facilitation of the course**

The second workshop continued seamlessly after a quick welcome by Dr Njihia Mukirae. Lecturers were very excited to learn more about instructional design and how to improve their e-learning modules to integrate ICTs.

The first module hinged on lecturers being able to analyse students and their learning contexts for the course. For this analysis to be successful the modes of learning and delivery modalities needed to be clearly understood. The coursework thus started with creating a common understanding of online learning and lecturers were placed in groups to focus on the location and delivery medium for face-to-face learning, distance learning, online learning and hybrid/blended learning. The groups worked on a Google
sheet and were able to very quickly collaborate and include all lecturers’ thoughts on the modes of learning.

Activity two focused on the learning problem and the purpose of the e-learning module that they were due to write. The trainer displayed a range of different websites of Institutions of Higher Learning and their e-learning modules and this provided context to what is currently in existence at other institutions. The lecturers completed a brainstorm activity which was then organised according to themes. Through these discussions it became apparent that their current way of writing modules was not achieving the desired goals of e-learning as their modules were limited to print modules available in an electronic format.

The last activity of the first day was to talk through learning objectives and learning outcomes and the use of action verbs as per Bloom’s taxonomy. The trainer used current modules to highlight the use of action verbs and discussed the need to provide a variance to the types of questions and not simply elicit regurgitation of information in the outcomes.

Day two concentrated efforts on student skills and access as this would inform the course design. Lecturers grappled with the following questions:

- Who are the students?
- What is their prior experience of the topic?
- What is their prior experience of technology use and online learning?
- What access will they have to technology on campus and off campus?

One of the current modules was used as an example and the group was required to evaluate whether these above questions were adequately considered in the module design. This activity led to animated discussions around what to include in the design of a module and the need for a template for writing modules to ensure uniformity between all course writers.

This led nicely to the next days’ activity on course features and lecturers enjoyed the use of sticky notes to work collaboratively to decide on key features that included types of interactions, teaching and learning approaches, assessment, modes of learning and facilitation as main threads however the need for inclusion of the Kenyatta University copyright statement became necessary. Lecturers were not fully mindful of the statement and what this meant for them as course writers and their intellectual property. The trainer then asked the Dean, Professor Fatuma Chege to clarify this
matter and she advised that there was a directorate that dealt with copyright matters and directed Dr Njihia Mukirae to consult with the Directorate to establish when a representative could come and talk to the lecturers about matters of concern.

The remaining part of the third day was used to discuss the course delivery platform and Mr Assah Mkhaya from E-learning Technical Support, presented on the Kenyatta University's online Moodle portal and the activities that were possible to include in their courses. Lecturers were able to work through and practice these activities in order to better understand what kinds of interactive activities could be included in the course design of their e-modules.

Evaluation tools and assessment strategies were discussed on the fourth day and lecturers were placed in groups to evaluate different rubrics for online course development. The larger group was eventually tasked with providing feedback and agreeing on one template for the design of course modules, rubric for assessment and a guide for the reviewer of the online module.

Lecturers were then placed in their departments and asked to start working on their modules based on the course design template agreed upon in the activity before. The last day was used to showcase each department’s efforts and a peer review on each presentation was completed. The majority of the presentations had included media, however at times it learning outcome was not evident. It was then discussed that the use of media to enhance learning was paramount and it was not acceptable to use media just for the sake of it. These points and more were discussed in detail as pointers for how the lecturers would need to craft their own modules.

The last part of the day was to plan for the virtual guidance and timelines for delivery and review of materials, complete the evaluation form as well as receive certificate of achievements for their efforts.
Analysis of survey results

The following were comments from participants when they responded to the question of what they found most useful during the presentation:

“Linking of more content and information into the online module.”
“Making content interactive”
“The practical aspect of module review and making it interactive.”
“The fact that you can have interaction in an online class. The amazing ways of doing that”
“1. Module review 2. Use of social media in teaching 3. Module writing skills”
“Coming up with module writing and reviewing rubrics was a great idea”
“Crafting the basics of developing a module”
“the aspect of integrating multimedia to a module”
“Applying the skills learnt in making a module interactive”
“Integration of various ICT tools like hyperlinks to videos and other resources
module Writing skills module Reviewing skills
working on modules in pairs at departmental level
The help in choosing the right technology and other learning resources and incorporating them in my module.
1. Where to source for multi-media for educational purposes 2. How to source for multimedia for educational purposes 3. How to use the multimedia with purpose 4. How to enhance traditional modules with multimedia 5. Making traditional modules more interactive
The word cloud below captures the key themes of what the lecturers had the following to say about their ability and newfound skills to train other colleagues in the instructional design of e-modules.

Analysis of the course impact

The impact of the course was observed from the first day, however participants immediately noticed the change in the coursework from ICT tools to how ICTs could be used to enhance learning through e-learning materials.

Participants had the following to say about the usefulness of the course and the hands-on activities in which they were engaged:
How would you rate the usefulness of the content covered?

1  0  0%
2  0  0%
3  2  14.3%
4 12  85.7%

How would you rate the hands-on activities in which you were engaged?

1  0  0%
2  0  0%
3  3  21.4%
4 11  78.6%
The following graph depicts the thoughts about the facilitator on her knowledge of the subject matter and presentation style.

**How would you rate the presenter’s knowledge of the subject matter?**

- **1**: 0 (0%)
- **2**: 0 (0%)
- **3**: 1 (7.1%)
- **4**: 13 (92.9%)

**How would you rate the presenter’s style of teaching how to design ICT integrated e-Modules?**

- **1**: 0 (0%)
- **2**: 0 (0%)
- **3**: 2 (14.3%)
- **4**: 12 (85.7%)
When asked whether the course had any influence on the change in their skills to design e-Modules and develop online learning activities, the participants had the following response

Lecturers further cited the following activities that they would implement to bring change to their workstations

“Sensitizing other staff training staff continuous technical support”
“Develop interactive modules, Train and sensitize colleagues”
“Changing attitude of members of department regarding online learning Supporting members to come up with interactive elearning materials Help members to review/ write modules Implement in a class room situation Publish papers on the same Train others on what am doing hands on”
“1. serve as an example by using the skills learnt 2. work and assisting colleagues on attitude change and systematic use of skills learnt 3. being passionate about integration of ICT in teaching and learning both to lecturers and students”
“1. Encourage colleagues to use online assessment to ease the burden of large classes. 2. Call for a coordination meeting with both permanent and part-time lecturers teaching Communication Skills to discuss the use of more interactive modes in facilitating the course. 3. Have integration and use of ICT as an item of agenda in the next departmental meeting this semester”
“1. I will be a more interactive teacher even in face to face settings 2. I look forward to utilizing the skills I have gained in class and during my daily interactions. 3. I intend to participate in capacity building my colleagues 4. I intend to raise awareness amongst my students on the use of ICT and Interactive E-learning”
“will use wikispaces, will attach more video and online links”

The survey results can be accessed [https://goo.gl/LVblGN](https://goo.gl/LVblGN)
Recommendations and Conclusion
During our discussions and activities it became apparent that Kenyatta University needs to:

- Ensure that a joint discussion between course writers and the University be scheduled in order for an common understanding of the terms of copyright and Intellectual property are intensely discussed and understood.
- A WhatsApp group has been formed with participant lecturers, however it is advised that further collaborative activities are scheduled on a regular basis in order to foster sharing of ideas at the School of Education.
- Kenyatta University needs to train other lecturers in the integration of ICT into their online e-learning modules to ensure that all lecturers are working in a coordinated and similar fashion to ensure that students receive the same standard from all lecturers.

The training went well where participants progressed from what they know to where they need to go within the week. The lecturers need to be afforded space to practice the skills they learnt as well as share with other colleagues as this will assist in mastering and practicing the skills they gained over the two weeks.

Thank you to the Commonwealth of Learning for providing this gratifying facilitation experience. The lecturers at Kenyatta University are ready and willing to be change agents at the School of Education. Well done KU!

Ms Omashani Naidoo
www.schoolnet.org.za

13 November 2015