

Using blogs to develop competence in undergraduate science teaching-investing in our Teaching Assistants

Rita Ndagire Kizito

8th ANNUAL TEACHING & LEARNING
HIGHER EDUCATION CONFERENCE
25-27 SEPTEMBER 2014, EDGEWOOD CAMPUS

Comparative Perspectives on Higher Education Systemic Change, Curriculum Reform, Quality Promotion and Professional Development



Who are these TAs?

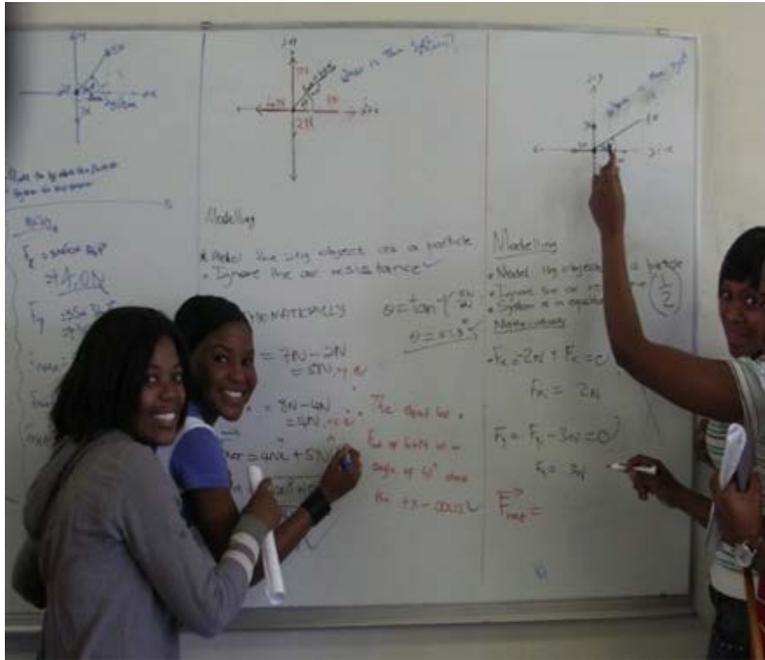
- UWC Science postgraduate students identified as 'potential' or 'would-be' lecturers in their departments
- Selected after interviews by their respective Heads of Departments and Module coordinators
- TAs are experienced in undergraduate study in their respective disciplines but relatively inexperienced teaching facilitators/tutors

Why employ Teaching Assistants?

- **Appropriate ‘non-lecture’, interactive pedagogic techniques in which students are actively engaged and can dialogue lead to improved undergraduate science learning – improved conceptual understanding and better problem solving skills**

Biggs, 1996; Crouch & Mazur, 2001 ;Lawson, Rissing & Faeth, 1999; Mazur 1997

TAs assist the lecturers in large class situations and help to reduce the teacher – tutor ratios



Investing in Teaching Assistants

Extended Curriculum Programme (ECP)

Academic year	Required courses			
Year 1	Maths150/ Maths 151	Physics 151	Life Sciences 151	Introduction to Science 153
Year 2	Maths 152/ Stat 151	Stat151/ Physics 152	Life Sciences 152	Main stream subject

**SPONSORS OF TA SALARIES: : MANUFACTURING & ENGINEERING
SECTOR EDUCATION AUTHORITY (merSETA)**



Some TA roles

- **Organizing small-group discussion sessions and managing tutors (Mathematics)**
- **Assisting the lecturers with in-class activities, and providing individual feedback to students in the mini lectures or ‘lectorials’. TAs also help with capturing student marks and attendance during the support sessions (Physics)**
- **Develop learning tasks for the practicals and tutorials, with inputs from lecturers (Life Sciences)**
- **Assist lecturer with administration, practical sessions and one-on-one consultation with students**

Mini professional learning - TA training programme

Learning Outcomes:

The TAs were expected to:

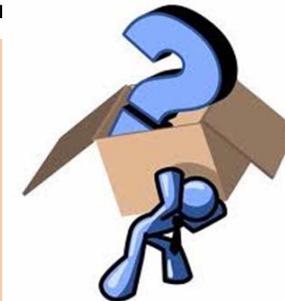
- Examine the UWC learning context
- Design authentic learning activities for a module
- Facilitate learning in the classroom context (role play)
- Mark and Assess student work
- Identify a research problem/ opportunity related to the ECP program

The programme consisted of contact workshop sessions supported with learning tasks (assignments), teaching conversations and a portfolio of evidence.

The blog was used as a communication, collaboration and information archiving tool

Each TA was required to:

- Attend and participate in all programme activities;
- Read and keep up with tasks and learning activities provided;
- Enter their reflections as blog entries on the constructed training programme website
- Attend and keep records of all sessions and workshops given; and
- Compile a portfolio of evidence for the participation experience.





- Home
- About the course
- Workshops schedules and learning materials
- Contact Us
- Facilitators



Our TA Training Blogs

- Abdulaziz Mukhtar
- Bradley Flynn
- Clement Bula Basuayi
- Daniel Angaama
- Jonathan Swanepoel
- Judy Jurgens
- Lynndle Maasdorp
- Mapula
- Maryke Meerkotter-Malan
- Nishani Ramluckan-Singh
- Philomene Nsengiyumva
- Riaan Cedras
- Rohan Madons
- Rosemary Eager
- Sanderson Masuku
- Simone Neethling
- Siyambonga matshawule
- Suzanne Short
- Thapelo Seatlhodi
- Vusumuzi

Tuesday, September 3, 2013

The seventh task Week 10 (August 29 - September 4)

Dear TAs

We are planning a session for all TAs this Wednesday, 4th September, in the lab at Cassinga from 12pm - 15h30 .

The aim of this session is to :

- 1) go over the requirements of the training programme together .
- 2) establish where we are in terms of completion of our learning tasks
- 3) draw out a reasonable plan of action for completion of our learning tasks.

We will be working from the **blog space** . .

Those who have not collected their portfolio files please come and collect them as soon as possible.

Visit the [Workshop 7](#) in the blog space to go over what was presented for this workshop, and then try to complete task 7 as soon as you can.

Posted by Rita Kizito at 8:45 AM No comments:

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Workshop Sessions

- Workshop 1
- Workshop 2
- Workshop 3
- Workshop 4 & 9
- Workshop 5
- Workshop 6
- Workshop 7
- Workshop 8



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Blog Archive

the blog environment

Purpose of this study

To examine whether blogs were suitable as tools for supporting science TA training (9 TAs) by asking two questions:

- 1) What are the functions that require support in this TA programme?
- 2) Which blog affordances could be used to support some of these functions?

The assumption was that some functions normally conducted in a face-to face environment could be moved into the blog space

Affordances - features of a technology enabling a user to perform particular activities or adopt certain practices (McLoughlin & Lee, 2007 as cited in Burden and Ali, 2008)

The blog and its affordances

- supporting communication and interaction - improved the students' communication and interaction with peers
- allows students to express themselves, elevates their level of motivation and engagement with online communities

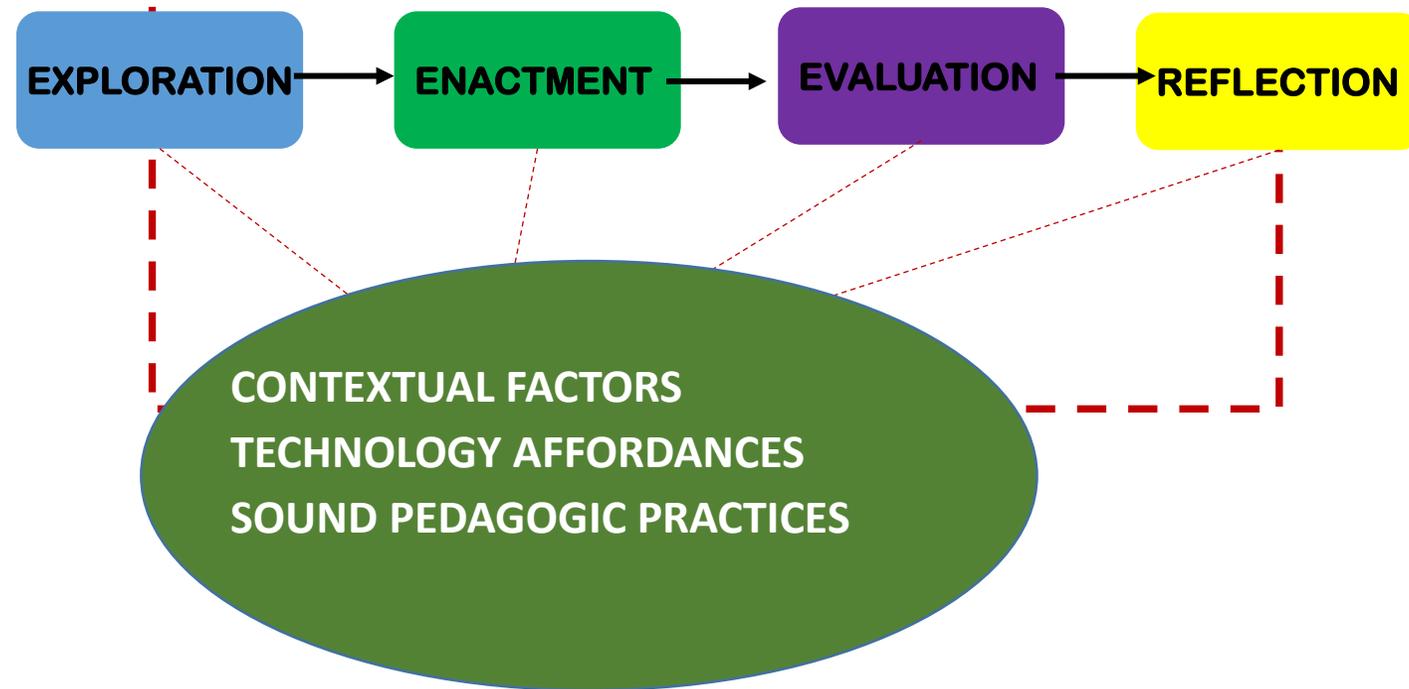
Burden & Atkinson, 2008; Nadzra & Kemboja, 2009 ; Tanti ,2012;
Wiid et al, 2013;



Integrated learning Design Framework (ILDF)

Dabbagh & Ritland, 2005

A constructivist-based instructional design model that offers a systematic process for designing online learning artefacts, evaluating their impact and then feeding back the results into the design process to improve learning



The process

- A facilitation team was formed to help guide the planning, design and delivery, of the programme (some ECP coordinators, an academic writing person, librarians, ICT professionals and professional tutor trainers)
- Each facilitation team identified learning outcomes and assessment criteria and developed learning materials, locating exemplars of best practice and relevant references.
- One strategic planning session was held to introduce the programme
- Thereafter, a week-long face to face workshop was held, supported with 2 ICT training workshops.
- Most communication occurred in the blog space.

Integrated learning Design Framework (ILDF)

Dabbagh & Ritland, 2005

EXPLORATION

the team determined providing TAs with enough information about their science teaching profession in the form of tasks they could apply easily in their teaching contexts was the main T&L challenge. Literature was consulted to learn more about the blog in the educational space.

ENACTMENT

the blog space was used for posting and completion of assignments tasks to support the face to face components.

EVALUATION

the programme was assessed for its level of utility using a 5-point Likert scale questionnaire and semi structured interviews interviews

REFLECTION

reflection on the whole process was conducted and results have been fed into the next round of design

CONTEXTUAL FACTORS
TECHNOLOGY AFFORDANCES
SOUND PEDAGOGIC PRACTICES

- run hurriedly, inadequate planning
- very limited budgets
- very tight time schedules

Findings

Programme learning outcome	Face-to-face environment	Teaching & Learning functions the blog supported	The level of success with the blog
Examine the UWC learning context	Introducing the UWC teaching context	<ul style="list-style-type: none"> To post the assignment instructions For assignment submissions and responses 	The participants were able to develop and share around their contexts very well context quite well
Design authentic learning activities for a module	Introducing the principles of design	<ul style="list-style-type: none"> To post the assignment instructions For assignment submissions and responses 	This assignment was not completed well. The task was too demanding. There was no sufficient time for completing the assignments.
Facilitate learning in the classroom context (role play)	<ul style="list-style-type: none"> Introducing the basics of presentation Presenting 15 minute teaching episodes Providing oral feedback to participants 	<ul style="list-style-type: none"> To post the assignment instructions To upload and showcase participants' 15 minute presentations 	The time was not sufficient for posting individual presentations for comments from each individual.
Mark and Assess student work	Introducing the principles of assessment	<ul style="list-style-type: none"> To post the assignment instructions For assignments submissions 	Participants did not have sufficient time to complete the assignments
Identify a research problem/ opportunity related to the ECP program	We did not get time to complete this assignment		

Teaching & Learning functions the blog supported

Evaluation results

Course evaluation questions	Strongly disagree	disagree	neutral	agree	Strongly agree
1. I had a clear idea of what was expected of me in this programme	1(9%)	2(18%)	4(36%)	2(18%)	2(18%)
2. The ways in which I was taught in this programme allowed me to pursue my own learning	0(0%)	2(18%)	2(18%)	5(45%)	2(18%)
3. The programme enabled me to develop and/or strengthen my qualities of a UWC teaching assistant	2(18%)	0(0%)	1(9%)	4(36%)	4(36%)
4. I felt that there was a genuine interest in my learning needs and progress	2(18%)	0(0%)	2(18%)	5(45%)	2(18%)
5. The programme developed my understanding of some teaching and learning concepts and principles	1(9%)	0(0%)	1(9%)	5(55%)	3(27%)
6. The workload for this programme was reasonable given my other commitments	2(22%)	4(44%)	0(0%)	1(11%)	2(22%)
7. I received feedback that was constructive and helpful	1(9%)	3(27%)	4(36%)	3(27%)	0(0%)
8. The assignments were related to my tasks as a teaching assistant at UWC	0(0%)	2(18%)	4(36%)	3(27%)	2(18%)
9. The staff facilitating this programme showed a genuine interest in their teaching	2(18%)	0(0%)	1(9%)	5(45%)	3(27%)
10. Overall, I was satisfied with the quality of the programme	1(9%)	1(9%)	3(27%)	6(55%)	0(0%)

Findings about the programme

- The areas of **feedback** and **workload** would have to be revisited to improve the quality of the programme. As one TA commented: *“Once again no feedback from coordinators clearly demonstrates that our efforts in the assignments were for nothing”*
- **Programme structure:** *“The programme is definitely useful, but it should be spread over the year not just bunched together over a few short weeks”*
- It was impossible to ask the coordinators to carry out extra work without **remuneration**
- Some facilitators felt that there was a **lack of congruence** between the assignments and the TA function
- Overall, students found the TA programme useful. One TA commented, *“The programme was very useful for TAs and it is still needed”*.

Findings about the blog

- Because the facilitators were not obliged to use the blog for feedback, blog use during the course became rather redundant as reported by one participant: *“The lack of feedback and support on my blog made me feel that all my efforts and hard work was for nothing”*
- In the beginning, the TAs participated and posted their assignments on the blog but this participation waned as we progressed through the programme.
- In general, the TAs appreciated the use of the blog.
“The blog was very useful as I could gain from what others were doing”; *“The blog was an interesting tool”*

Suggestions for improving the programme

- **Administering the programme in two rounds (one in the first semester, and the other in the second semester) in order to spread the workload evenly throughout the year**
- **Keeping the content as short as possible by reducing the reading material and assignments**
- **Shortening or changing the format in which the TAs had to give feedback (assignments etc.)**

Discussions

- **Realistically we underestimated the time required to complete the online tasks**
- **Although experienced teachers already in practice worked as facilitators in order to ensure that the TA training was embedded in practice, the facilitation team did not have time to build a common framework underpinning the course design and delivery**
- **Even though the blog was used to communicate, upload assignments and make sure the participants were engaged, the process required more streamlining**

Recommendations

- **More planning around the learning activity design and delivery**
- **The programme should address students learning needs while at the same time meeting the professional development demands**
- **The recommended process should involve:**
 - ✓ **Setting goals related to ECP student learning challenges**
 - ✓ **Refining the existing learning content (shorten the learning activities)**
 - ✓ **Ensuring that there is a coherent underlying philosophy underpinning the programme**

Conclusion

- “Blogs offer opportunities for increased student participation, interaction, and learning. To be most effective and appealing, assignments for postings need to allow sufficient time for commentary” (Goldman, Cohen, & Sheahan’s 2008, p.160)
- Dabbagh’s (2000) warns about the delicate balance of creating activities that integrate face-to-face and media in a manner that does not end up doubling both student and teacher workloads.
- Blogs appear to be an ideal vehicle for providing access to learning materials to support TAs during their practice training for teaching. They also have the potential for eliciting active engagement of students. **However, they are no substitutes for the teacher (mentor) guidance the TAs require**

References

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