UFS 101 Final Evaluation

11 November 2011

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Contents

Executive summary

The final evaluation report on the UFS 101 module was compiled after the completion of the pilot project which was conducted in the second semester of 2011. The findings in this report have been interpreted in the light of the model that will be implemented for UFS 101 in 2012, and all recommendations have been made bearing this model in mind.

The aim of this report is to present evidence gathered from multiple sources and perspectives on the UFS 101 module in terms of the attainment of the overall module outcomes; the attainment of individual unit outcomes; the effectiveness and quality of lecture sessions, tutorials and learning experiences; the effectiveness and quality of learning materials and platform for learning (Blackboard); the efficiency and effectiveness of various logistical processes; and student success in UFS 101. By examining this evidence this report will highlight any critical concerns, risks or problems related to the module that have arisen during the implementation of the pilot, identify strengths inherent in the module that have emerged during the implementation of the pilot, and provide data for the purposes of planning for the roll-out in 2012.

Attainment of overall module outcomes

In terms of the attainment of overall module outcomes, student responses to both the closed and open-ended questions confirm their growth in the areas of respecting others' opinions, reasoning beyond emotions, critical thinking and seeing the value of diverse perspectives, supporting the assertion that the module outcomes are being achieved, at least to some degree.

Furthermore, based on the learning facilitator feedback and student responses to open and closed-ended questions related to academic writing and reflection skills it is concluded that there is some evidence of growth in these areas, but that it is not the most noticeable change for the students themselves.

In terms of the ground rules for learning, there were only isolated incidents of inappropriate comments and posts made in discussion forums, suggesting that students were able to apply these principles to their assessment tasks. However, there were a limited number of inappropriate comments (some of which were not handled optimally by the learning facilitator), and it is therefore important to incorporate into the training of the learning facilitators how to deal with negative/inappropriate student responses in order to further social cohesion.

Unit specific feedback

General

For the most part, the individual unit outcomes align well with the overall module outcomes, and the assessment tasks within each unit align well with the individual unit outcomes. There is some scope to revisit the materials in the science units to make them more "accessible" to non-science students, and a limited number of assessment tasks may need to be tweaked slightly (see discussion on each individual unit below). Furthermore, it is recommended that the purpose of each unit be articulated explicitly at the start of each unit to provide a clear pathway for students to follow as they work through the materials.

There was evidence of both excellent and substandard responses from students to all the assessment tasks – in other words, whilst some students clearly demonstrate that they have met the unit outcomes other students are not able to demonstrate this at all. In the absence of any baseline data for comparison it is not possible to unequivocally attribute students' development and achievement of overall module outcomes (e.g. skills such as critical thinking, writing skills and seeing both sides of an argument) to their participation in UFS 101. However, when taking into consideration their self-reported gains with respect to each of the units it can be deduced that the module has made a valuable contribution to those students who engaged meaningfully in UFS 101 in its entirety.

Unit 1

The purpose and outcomes of this unit align well with the overall module outcomes, as well as with the stated ground rules for learning. An examination of both the assessment tasks for the unit indicated that these tasks were well aligned both with the specific unit outcomes and the overall module outcomes. Both presenters received tremendously positive feedback from students, learning facilitators and the implementation team.

Unit 2

Overall, the outcomes of this unit align well with the overall module outcomes, as well as with the stated ground rules for learning. However, the outcomes for the unit can be readjusted slightly to be more aligned with the content of materials/lecture (specifically for lecture 2) and there is scope to revisit the assessment tasks to help students think beyond their personal convictions and focus on the multi-faceted aspects of the debate at hand. Students provided very positive feedback on the presenter.

Unit 3

The purpose and outcomes of this individual unit align to some extent with the overall module outcomes. There is some room for adjustment of the outcomes to move the emphasis away from content knowledge to a more applied focus. An examination of both the assessment tasks for the unit indicated that these tasks were aligned both with the specific unit outcomes and the overall module outcomes. However, the first assessment task is focussed exclusively on content knowledge and could perhaps be revised to have a stronger focus on real world application.

Student feedback related to this unit indicated that although students found the topic interesting, many students found the material difficult to engage with, a sentiment that was echoed by the implementation team.

Furthermore, there is a definite need to revisit the assessment tasks and in-class activities for the unit in order to provide additional support for students who did not have Science as a Grade 12 subject – particularly in the light of the increased number of students who will not have this background in the 2012 roll-out.

Unit 4

The unit outcomes for unit 4 align well with the overall module outcomes of allowing students to take a different disciplinary perspective, to reflect critically on local and global issues and to articulate these through academic reflection and writing. Furthermore, the two assessment tasks for this unit were very well aligned with the unit outcomes. However, an analysis of student assessment tasks and learning facilitator feedback suggests that students had difficulty in meaningfully completing the assessment task that required them to analyse the "God said" discourses in their own lives. Despite these student responses to the online evaluation, the evaluation suggests that Unit 4 in particular was instrumental in getting students to question the underlying assumptions they use to interpret events and people around them.

Unit 5

The outcomes of this unit are well aligned to the overall module outcomes, especially in being able to help students reflect on how education and science relates to local and global challenges in everyday situations. Evidence from the online evaluations supports this – particularly with regards to 21st century global challenges. The content of this unit (science and nanotechnology) is less likely to be in the realm of students' general knowledge, and it is even possible that a number of students in the module did not take science at high school. Student feedback from the online evaluation suggests that the unit does

manage to strike the balance between difficult scientific concepts and helping students make the link to real-life applications. However, there may be a need to revisit some of the learning materials in order to provide more support and scaffolding for students who do not have a science background.

Level of academic challenge

The vast majority of the students did not experience the level of academic challenge in the module as overwhelming, and indicated that it was appropriate for first-year students. As was indicated in the discussion above, more students struggled with Units 3 and 5 in terms of being able to understand the content and that some additional support is necessary in these modules. The module successfully manages to get students to think about difficult situations/problems from different perspectives, and does appear to help students think about their knowledge in terms of 21st century local and global challenges.

As intended, some of the materials and topics presented to students confront them with issues that are likely to cause them some level of discomfort as they confront their own belief systems and long held assumptions. For the most part it appears that students are able to reconcile such matters internally and are able to relay what they have learnt in the process; however, some students appear not to be able to do so.

Because of the highly sensitive/emotive nature of some of the material, it is recommended that some attention is given to guiding students on how to deal with topics that upset them or make them highly uncomfortable. A short video posted on Blackboard and notes in the module guide could be used to give students information on which channels they can use to seek support. Additional to this, during the Orientation to UFS 101 in 2012 students could be sensitised to the fact that they will be dealing with real, but sensitive, issues in the module and guidelines for seeking support can be briefly outlined.

Being able to effectively support students in this type of process is one of the key skills learning facilitators need, and it is thus recommended that the new learning facilitators for 2012 are provided with training in academic advising (as was done with the pilot) with a strong emphasis on how to assist students who may need to be referred to counselling or additional support services.

Effectiveness of lecturers

The overall quality of the lecturers in the UFS 101 pilot is one of the strengths of the module, although there is distinct variation between the two evaluation periods. In the first evaluation (related to Units 1 and 2) the overwhelming majority of students indicated that their lecturers were well prepared,

communicated clearly, encouraged discussion and facilitated activities well. In the second evaluation however, significantly lower numbers of students agreed that the lecturers were able to communicate clearly, encourage discussion and facilitate activities well. The greatest discrepancy was in terms of encouraging class discussions. Although this may be partly due to the nature of the materials presented (i.e. astrophysics and nanotechnology rely more on factual information than debates), in order to encourage active learning alternative ways of encouraging class participation (such as small group discussions or tasks in class) could be considered in the science units. In the context of the drastic drop in student ratings in terms of lecturers it may be necessary to make some revisions for the roll-out in 2012.

Class preparation and participation

Students were required to prepare reading materials in advance for all classes. The majority of students indicated that they prepared for some (but not all) of the classes. Among the students who indicated that they never prepared, the majority cited lack of time as the reason. Other reasons students gave for not completing readings were that there was too much reading material and that they needed to focus on their other modules. If responses to this question are linked to the student responses to the time management questions, a definite theme of "work overload" associated with UFS 101 begins to emerge.

Given that students in 2012 will be participating in UFS 101 in addition to their required first-year modules, it may be necessary to consider decreasing the overall workload associated with the module.

One of the most encouraging findings in the report is that almost all students indicated that they either often or sometimes participated in class activities. This high level of active learning can be considered one of the strengths of the UFS 101 pilot. However, it is recommended that the lecturers are sensitised to the impact of their reaction to student responses on the levels of participation in the classroom context.

Learning experiences

Students experienced the learning activities positively, and found them both interesting and relevant to the learning materials. The visit to the Boyden Observatory was the most relevant and most interesting activity for the students, whilst the moot court and debate were rated as the least relevant and interesting.

There were some scheduling and time related concerns associated with some of the activities, all of which can be resolved for 2012 with relative ease. The most critical challenge was that some of the

activities were only presented once – all activities should be presented twice (at the very least) and at least once in the day and once in the evening to accommodate student schedules in all faculties.

Two of the activities (the moot court and the debate) were not presented as an "actual" moot court and debate – resulting in some disappointment from students. It is recommended that these activities be revised or that they be renamed in the 2012 roll-out to eliminate this. Revising the structure of the debate may also help students to make the link between the unit and the activity more explicit and help them understand the content better (as it appears that the content of the debate was difficult for students to follow).

Despite their relevance and value in the module, to maintain the high quality of the learning activities in 2012 it will be of vital importance for the UFS 101 staff to pay close attention to logistical arrangements. It is therefore recommended that the newly appointed staff members consult regularly with the pilot implementation team to facilitate these activities smoothly. In particular, the visit to Boyden and the SA War Museum have very high levels of logistical detail that has to be coordinated (including transportation, accommodation etc.) and the implementation team could consider innovative options (such as videos and IMAX movies) to decrease some of this pressure. However, the decision to do this should be weighed up against how relevant and valuable the activities were to the students (in particular with respect to the Boyden visit).

Tutorials

Levels of active learning within tutorial groups were high, and students as well as learning facilitators reported positive experiences about the sessions. The use of tutorials to supplement lectures is another one of the strengths of the UFS 101 model because it allows for even more students to participate in discussions than is possible during the lecture time. These tutorials will play a critical role in the success of the 2012 roll-out where classes will be very large (possibly in excess of 1500 students per class if only 2 lectures are held each week) and getting students to actively participate in class sessions will become far more challenging.

Student responses to their learning facilitators were very positive and the overwhelming majority of students indicated their facilitators were well prepared, friendly, available, helpful and encouraged discussion – these positive evaluations remained consistent between both evaluations.

Although responses remained positive, there is slightly less agreement that the learning facilitators were able to facilitate the students' development of writing and argumentation skills through their feedback.

The ability to facilitate the development of these types of skills is not an easy skill to acquire and it is recommended that facilitators receive intensive and on-going training in this regard, particularly in the context of online tutorials.

Learning facilitators

The learning facilitators have all played a significant role in the success of the UFS 101 pilot study, and their enthusiasm, effort and high quality work should be lauded as one of the most positive aspects of the UFS 101 pilot. Their hard work and dedication to making the module run smoothly from a logistical perspective are admirable, but more importantly (as highlighted by the student feedback) their contribution to student learning and development is invaluable.

Although most learning facilitators had some experience in facilitating peers, many still indicated that they were not fully prepared for their role in UFS 101. In the context of the large number of facilitators that have to be recruited in 2012 it may not be possible to only recruit facilitators with experience, and thus the on-going training of the facilitators will become even more important.

The major challenge faced by the learning facilitators was the management of their own time and juggling demanding schedules along with UFS 101 responsibilities. It should also be pointed out that these facilitators were each responsible for only 1 group which approximately 10 – 15 actively participating students. In order to be able to facilitate this group in the current module structure the learning facilitators report spending 7-9 hours per week (depending on the nature of the assessment task and the nature of the learning experience they needed to attend). Learning facilitators in 2012 will each have 2 groups of approximately 25 students per group, which will mean a marked increase in the amount of assessment they will be responsible for. It is estimated that learning facilitators may need to spend about 10-15 hours per week on UFS 101 related activities and this expectation will need to be clearly communicated to learning facilitators prior to their appointment. The UFS 101 team for 2012 must consider carefully how they will deal with this matter in order to find a critical balance between not overloading facilitators with too much work (resulting in a decrease in the overall quality of their work) and not employing too many facilitators (resulting in an unmanageable administrative load for the team to manage and monitor the facilitators).

Finally, there were some minor problems encountered along the way where a very small percentage of learning facilitators did not meet their responsibilities and further disciplinary steps were necessary. Even among the most dedicated of the facilitators it was necessary at times to send numerous reminders to submit assessment marks or to submit documentation. It is recommended that a

comprehensive code of conduct/job description is drawn up for 2012 which all learning facilitators will be required to sign (prior to the commencement of their duties) detailing all of their roles and responsibilities and that clearly articulates what is expected of them. In order to facilitate the process of managing the learning facilitators with greater efficiency, a more structured communication and monitoring system (e.g. monitoring of attendance at classes, learning activities etc.) for learning facilitator activities should be put in place in order to minimise the possibility and management of incidents (e.g. learning facilitators who fail to do what is required of them). This will be of particular importance in 2012 when the number of facilitators that must be managed increases from 10 to between 70 and 80 facilitators.

Module guide

Based on the responses to the module guide, including the use of the glossary and the additional resources, it is concluded that students have been actively engaged with the material on a regular basis. No doubt one of the contributing factors to this is the excellent layout and quality of the module guide.

Furthermore, it is evident from the student feedback that for the most part they have experienced the module guide positively. The high quality of the learning materials the students were given is highlighted as one of the strengths of the module. However, although students are using the glossary its usefulness could be improved by cross-referencing words in the glossary with the actual unit text. The next challenge that faces the UFS 101 team is to maintain the high quality of the module guide content in the design of the additional two units that will be added in 2012.

Blackboard

From the perspective of the learning facilitators and the implementation team, BB presented one of the most significant challenges to the effective implementation of the pilot – particularly during the first two weeks of implementation. The number of large-scale problems associated with BB decreased over time but were never entirely eliminated. If the technical aspects related to managing such a large class within the system are not resolved prior to implementation in 2012 there will be a steep increase in the administrative load placed on the UFS 101 team, and it will significantly increase the amount of time required from learning facilitators to manage the grading of assessments.

Most students that had used BB prior to UFS 101, reported few problems associated with internet access and found the instructions provided in BB clear. Despite this, during the first two units students had trouble finding information on BB and submitting assignments. There was some improvement between the two evaluations in this regard, and it is likely that as the module progressed students

became more familiar with how to use BB and where to find relevant information. Despite the overall improvement, there remained a number of hiccups that were not completely ironed out as a number of students still complained about submitting on BB in the second evaluation.

In order to minimise some of the legitimate problems associated with assignment submission on BB it was recommended in the interim report to move the submission day to a Tuesday at 11h00 or 12 noon. This recommendation has been accepted by the UFS 101 implementation team and the module will be planned accordingly for 2012.

In light of the feedback given by both the students and the learning facilitators, it is recommended that a hands-on formal training session on BB be presented to students prior to the start of the module, as well as to learning facilitators as part of the broader learning facilitator training programme.

Although the problems associated with BB and assignments were well managed within the context of the pilot, but can present a significant administrative challenge in 2012 with 3500 student participants.

Logistical processes

Despite the tremendous logistical load, the implementation team has done an exceptional job of ensuring this multifaceted programme runs smoothly with very few serious problems. Students reported no logistical problems and very few logistical problems were encountered by the learning facilitators (those which were reported focussed predominantly on BB-related issues). Furthermore, there were also no serious logistical problems reported by any of the lecturers.

The sheer scale of the module in 2012 will mean that logistical processes must receive a great deal of attention, and it is strongly recommended that all newly appointed personnel members in the project liaise closely with the pilot implementation team in order to ensure that the module will roll-out as smoothly as possible. Furthermore, there should be clear role clarification between the various UFS 101 staff in terms of who will be responsible for dealing with student queries, facilitator queries and logistical queries in order to ensure that all matters are handled timeously and to avoid any major implementation problems.

One of the key logistical matters that will need careful attention and detailed planning is the conceptualisation and implementation of a comprehensive monitoring system for the module.

In the context of the pilot it was found that data obtained from various sources was at times difficult and time consuming to reconcile. Given that successful completion of the module is reliant on the accurate and consistent monitoring of class and learning activity attendance, as well as assignment

submission it will be imperative to keep an updated record for all students on a weekly basis in order to decrease the number of queries.

Furthermore, it is recommended that the strong focus on monitoring and evaluation research implemented in the pilot be continued in 2012.

Attendance

There was a steady, but consistent decline in student attendance in the module from Lecture 1 (171 students in attendance) to Lecture 10 (94 students in attendance), with 27 students formally requested to withdraw from the module. A similar pattern of decline was noted in the learning activity attendance. Given that the UFS 101 curriculum has been designed in such a manner that learning takes place to a large extent within the classroom and tutorial context, attendance of classes and activities is essential. In order to promote learning and prevent the inevitable decline in attendance, the model for implementation in 2012 makes attendance compulsory and links attendance to grades.

Assessment

Students had some difficulty in understanding how to complete assessments on BB (particularly discussion forums) in the early units, but their problems in this regard decreased significantly in the later units. In order to overcome this, additional ways of supporting students within BB during the first 2 modules could be considered and a more comprehensive BB training during the launch and orientation are essential.

In line with the declining class attendance, submission of assessment tasks also continued to decline – from 125 for Unit 1, Assessment 1 to 76 assessments in Unit 5, Assessment 2. However, for those students who remained engaged, performance in assessment tasks was good to above average. Some unit specific changes to assessment tasks are necessary and relevant recommendations have been made in the full body of this report.

The assessment-dense model implemented within the pilot forces students to remain engaged in the learning material and process, and thereby enhancing their learning; however, a number of problems arose during the pilot that need to be resolved prior to 2012 when UFS 101 will be a credit-bearing module. There is consensus from students, learning facilitators and the implementation team that the assessment load in the pilot was too heavy, and that the date and time for the submission of assignments needs to be revised. This revision is particularly important in the context of the discussion forums, where staggered submissions may be necessary (detailed recommendations in this regard are

provided in the body of this report). Finally, there is an overreliance on discussion forums as the method of assessments within the units (with some of the assessment tasks not well suited to this type of discussion), and a greater diversity of assessment tasks is recommended.

Time management

Bearing in mind the large number of students who are already academically overloaded (even if they only enrol for the required degree programme modules), the significant percentage of students who are not adequately prepared for the demands of higher education (and as a result are required to take additional language and/or maths development modules, the credits of which do not count towards degree attainment) and that the transition from high school into higher education places significant demands on students (academically, socially and psychologically) it is important to understand the time impact the module has on students.

Most students had some difficulty with fitting the UFS 101 lectures and assessments into their academic schedules, and the percentage of students for whom this was a problem increased from Evaluation 1 to Evaluation 2. It appears that as academic pressures in other modules during the semester increased students found it more difficult to deal with their UFS 101 responsibilities. One plausible explanation for the consistent drop in attendance and participation in assessments as the module progressed is that some students made the choice to give their other modules preference over UFS 101 due to the large amount of time required for preparation, class attendance, activities and assessments.

The time at which the morning class was scheduled (12h30) posed a particular challenge to students due to the fact that all other lectures at the UFS start at ten past the hour. Based on student feedback from Evaluation 1 in this regard, it has been decided that classes for UFS 101 will be aligned with the UFS timetable to decrease the number of clashes.

There were a number of students who had clashes for both the morning and the evening time slots, and could thus not attend any of the UFS 101 lectures. This group of students presents a particular challenge for the 2012 roll-out where class attendance will be linked to grades, and that excuses and online video viewings will need to be monitored weekly.

Given that the module has been approved as a degree requirement for all students and the considerable challenges around scheduling and time management, it is recommended that the UFS 101 module be incorporated into the UFS classroom timetable to avoid situations where students cannot attend classes. This will benefit not only the student (who will be present in class and benefit from the experience) but

also decrease the administrative load on the UFS 101 staff that have to monitor attendance excuses and the viewing of the online videos.

Student success in UFS 101

Only a very limited number of students (20% of those initially active in the module) managed to successfully complete the module based on the criteria set out for them. If learning experiences (excluding tutorials) are included in the calculation then only 22 students (13%) would meet the attendance/assignment submission criteria suggested for the successful completion of the module in 2012. Taking into consideration the low number of students who met the criteria for successful completion in the pilot, and that the students did not receive credit for participating in the pilot, it was decided to amend the criteria in the spirit of recognising their hard work and effort throughout the semester. After the amended criteria were applied a total of 91 students obtained certificates (i.e. 54% of students who were initially active in the module).

Although it must be borne in mind that students were aware of the fact that they would not be obtaining credit for the pilot study (possibly influencing their choice to disengage), the consistent decline in participation and the very low percentage of students who would meet the criteria for successful completion presents a very real risk to the implementation of UFS 101 in 2012. Although it is hoped that the mandatory nature of the module in 2012 will help to eliminate some of the student disengagement in the module over time, given that the credits do not count for degree purposes may result in students not taking the module seriously from the start or may result in similar decline in motivation and participation as pressures in other modules increase. The complexities around student participation and levels of engagement in classes and assessment must be noted as a potential risk factor that may need to be managed strategically in 2012 – including how failures will be dealt with and what requirements for reassessment and re-enrolment will be.

Final thoughts

Overall, the implementation of the pilot UFS 101 module can be considered successful, and a number of valuable lessons have been learnt that will significantly increase the chances of successful roll-out in 2012.The rich and positive experience that students had with this module is evident in the comments that emerged in both the online evaluations and through their spontaneous quotes on Facebook. Although some of the general feedback students provided were negative, this was limited in scope and nature.

During the evaluation process a number of core strengths of the UFS 101 core curriculum module have emerged. It is recommended that the implementation team for UFS 101 in 2012 makes every endeavour to maintain the high quality of each of these aspects.

The evaluation process has also highlighted a number of key areas in need of attention prior to implementation in 2012, and each of these has been discussed in greater detail in this report. In order to ensure the successful implementation of the module in 2012 it is recommended that the newly appointed staff pay close attention to these recommendations and liaise closely with the pilot implementation team.

Introduction

The final evaluation report on the UFS 101 module was compiled after the completion of the pilot project which was conducted in the second semester of 2011.

This report serves the following purposes:

- Present evidence gathered from multiple sources and perspectives on UFS 101 module in terms of:
    a. the attainment of the overall module outcomes;
    b. the attainment of individual unit outcomes;
    c. the effectiveness and quality of lecture sessions, tutorials and learning experiences;
    d. the effectiveness and quality of learning materials and platform for learning (Blackboard);
    e. the efficiency and effectiveness of various logistical processes;
    f. student success in UFS 101
- to highlight any critical concerns, risks or problems related to the module that have arisen during the implementation of the pilot;
- to identify strengths inherent in the module that have emerged during the implementation of the pilot;
- to provide data for the purposes of planning for the roll-out in 2012.

The findings in this report have been interpreted in the light of the model that will be implemented for UFS 101 in 2012, and all recommendations have been made bearing this model (as described below) in mind.

In 2012 UFS 101 will be a credit-bearing compulsory module (not for degree purposes, but required for graduation) for all mainstream first-year students (approximately 3500 students). Students will be divided into tutorial groups (maximum size 30), and thus there will be approximately 140 tutorial groups in 2012. In order to keep the number and quality of learning facilitators manageable, it has been decided to appoint a maximum of 80 learning facilitators, each of whom will be responsible for 2 tutorial groups. The additional 10 learning facilitators must be recruited because it can be expected that some facilitators will withdraw or be unable to continue. The risk of not having enough facilitators is thus minimised.

The following will be the criteria for successful completion of the module:

- A minimum of 70% attendance of lectures AND learning activities
  - All lectures will also be available on Blackboard to accommodate students who are not able to attend lectures. However, due to the nature of the learning material and the design of the module, watching the video of the class will only count as attendance in exceptional cases and when appropriate arrangements have been made with the UFS 101 team
- Only one assessment task per unit will be required (as opposed to two tasks in the pilot)
- All assessment tasks must be completed and a minimum grade of 50% obtained

Although in principle there is support for an opportunity for reassessment if students do not meet these requirements, it is yet to be decided what the nature of this will be. Finalising how reassessment will take place and what the consequences of non-completion or failure will be are two of the most critical elements that should be resolved by 2012. It will be important to resolve these issues as soon as possible in order to be able to articulate clearly to students what the consequences will be if they do not successfully complete the module. If the UFS 101 staff cannot clearly articulate concrete consequences to students from the outset of the module, the possibility exists that students will assume that any vague consequences described to them are "empty threats" and they might not take their responsibilities in the module seriously. This could lead to an increased disengagement with the module over time as other academic pressures increase (as was clearly evident in the pilot) and result in large numbers of students that have to be managed in the reassessment process adding an additional administrative and academic load onto the UFS 101 staff.

Methodology

Ms Melody Mentz is serving as the module evaluator for the duration of the UFS 101 pilot. Although she is an employee at the division of Student Development and Success (the unit which is primarily responsible for the implementation and logistical arrangements of the module), she was not involved in the planning or design of the module in any way. As the independent evaluator, she has worked closely with the UFS 101 implementation team on an almost daily basis to observe and collect data for the module evaluation. She is also responsible for compiling any reports related to the evaluation of UFS 101, including this report.

The evaluation framework for the UFS 101 pilot is very comprehensive and aims to gather information from multiple sources at regular intervals in order to obtain a holistic perspective on multiple aspects of the module.

Data for the purposes of this final evaluation was obtained from multiple sources, including:

- the assessment tasks completed by the students in each of the units;
- direct observation by the evaluator who attended each lecture and each learning activity, as well as the weekly learning facilitator meetings;
- feedback from students by means of two formal online evaluations;
- emails from students sent to the UFS 101 account, as well as questions and comments posted on the social networking sites (Facebook and Twitter);
- formal and informal feedback from the UFS 101 implementation team;
- informal and formal feedback from UFS 101 learning facilitators;
- informal and formal feedback from lecturers.

Sample

A total of 404 first-year students were selected to participate in the UFS 101 pilot. The sample of students was selected by means of carefully delimited criteria. All mainstream students who wrote the NBT tests in 2011, and whose AP score was higher than 30 were eligible for inclusion. Within this group, only students whose academic literacy scores were in the NBT levels *Proficient* and *Intermediate* were considered for inclusion in the UFS 101 module. Students in the *Basic* proficiency level were not considered for inclusion due to the fact that they already have to take additional Academic Literacy credits and there were concerns that adding the additional 32 credits for UFS 101 would result in credit overload for them, possibly contributing to poor academic performance.

Based on the criteria described above, there were 1455 students who were eligible for inclusion. Of this total, 67% were classified as *Intermediate* and 33% were classified as *Proficient*. During the selection of the participants it was ensured that the sample was representative at the level of faculty, gender and race. In order to do this the sample was categorised by faculty and a randomised procedure was used to select a sample within each faculty which was representative of gender, race and NBT proficiency.

Of the initial 404 students who were selected to be part of the sample, a total of 50% (n=203) indicated their willingness to participate of which 198 attended the project launch.

It should also be noted that after the selection process and the launch, there were a number of exceptions made to include a select number of senior students and to add additional first-years who were not in the original sample. These exceptions were made in light of the additional space that had become available.

When data from the biometric scanners, the group membership on Blackboard (BB), the module evaluations from Questback, and the list of registered students obtained from the SDS were combined, a total of 212 cases appeared in the data file.

There were a number of mismatches in the data from these different sources which had to be cleaned manually, including:

a. Incorrect student numbers in the list of registered students provided by SDS

b. No student numbers provided for some students on the list of students registered provided by SDS

c. Inconsistencies in the data provided by the department responsible for the biometric scanning. Some students' fingerprints did not scan – these students were asked to fill in a paper attendance sheet in order for them to be added manually. Of the students who filled in the paper attendance list only some were included in the dataset, the others had to be manually added.

d. There were a total of 25 students who had not ever been scanned with the biometric scanners (i.e had not attended any classes), but were on the list of students who were considered to be registered. Each of these cases had to be investigated to determine if this was because of the numerous data inconsistencies described above, or genuinely due to non-attendance.

After reconciling the student numbers on the different lists with each other, and deleting students who had not participated in any activities, nor attended any classes or completed the evaluation there were a total of 191 students left in the data set. Within this group, a total of 28 students had not enrolled in a group according to the list provided by the SDS. However, after manually comparing the SDS list with the
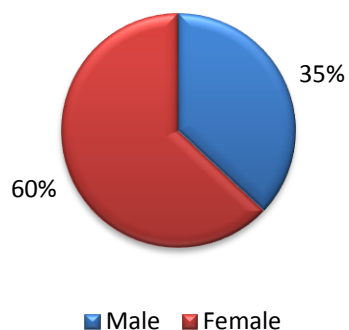
actual enrolments on BB it was concluded that a number of these students were in fact in a group, and the data file was updated accordingly.

After reconciling these cases, there were a total of 17 students who were not in groups (and had not completed any assessments), had not participated in any learning experience (i.e. the moot court or the visit to the war museum), and had not completed the evaluation – but had attended at least one class. For the purposes of this report these students are assumed to have withdrawn from UFS 101 as they are no longer actively participating in any of the stipulated activities. A short questionnaire was drawn up and emailed to this group of students investigating their reasons for withdrawal. Due to the short time frame in which the survey needed to be conducted, an SMS was sent to the students to ask them to complete the questionnaire, and after 48 hours a researcher made a follow-up call to the students who had not yet responded. During this process 2 students were identified who had not withdrawn from UFS 101, but were not enrolled in groups. These individual cases were followed up by the implementation team and their data appropriately reconciled.

After all of these adjustments had been made, a total of 168 students were registered and have joined groups, and are considered to be the total number of enrolled students for the purposes of this report. Of this group of 168 students, a total of 100 (59%) completed the first module evaluation and 74 (44%) completed the final module evaluation – both which were posted on BB.

The demographic characteristics of this original sample are shown in Figure 1 below.
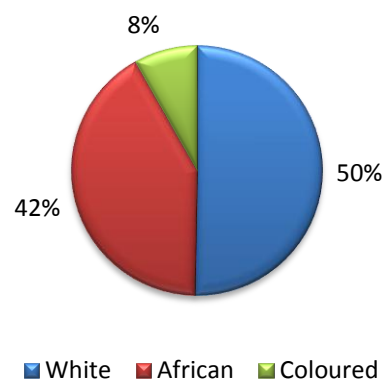
UFS 101 sample preferred language of Instruction

40% Afrikaans
60% English

■ Afrikaans ■ English
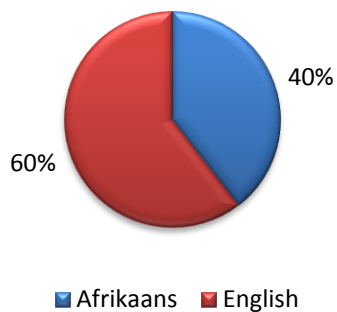
UFS 101 sample by faculty

12%
32%
31%
2%
16%
7%

■ EDU ■ EMS ■ HS ■ HUM ■ LAW ■ NAS
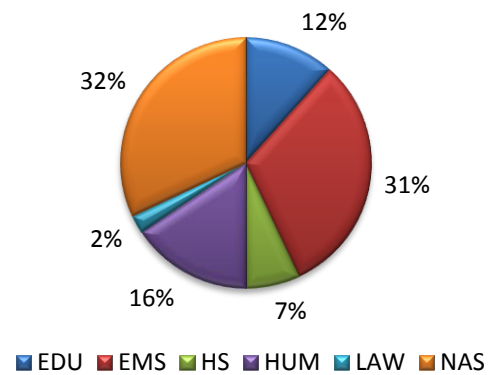
Figure 1: Demographic characteristics of students participating in UFS 101: gender, race, preferred language of instruction and faculty.

Limitations

The following limitations should be taken into account in this evaluation report:

- Students who completed the evaluation surveys are those students who remained active in the pilot study, and thus the responses they provided may be somewhat positively biased. This is especially true in the case of Evaluation 2 where a number of students had already opted to withdraw from the module completely. The perspectives and experiences of these students are thus not fully and accurately captured within the contents of this report.

- In order to understand more comprehensively understand the factors that contributed to these students withdrawing from the module it is recommended that an in-depth qualitative focus group be conducted.

Overview

This section of the report will briefly outline what the UFS 101 pilot project entailed and what was required from students in the module. The module consisted of 5 units, each with two lectures, two assessment tasks and at least one learning experience.

The table below shows the topic of each unit, the broad discipline area of the unit, the lecture titles, the learning activities associated with each lecture and the assessment tasks.

Unit #	Topic & Discipline	Lecture Title	Activity	Assessment
1	How Do We Deal With Our Violent Past? (History)	How do historians think?	South African War Museum *	Discussion Forum (on Blackboard)
		How to apply historical reasoning to current problems	Face-to-face tutorial (policy analysis activity)	Essay
2	What Does It Mean To Be Fair? (Law)	What's the law got to do with it?	Moot court**	Discussion Forum (on Blackboard)
		It's not only us struggling! An international perspective on moral dilemmas	No Activity	Discussion Forum (on Blackboard)
3	Are We Alone? (Astrophysics)	Finding the next Earth	Boyden Observatory*	Multiple Choice Questionnaire
		A whole new world	No Activity	Discussion Forum (on Blackboard)
4	Did God Really Say? (Theology)	God at the hands of humans	Face-to-face tutorial (discourse analysis activity)	Reflection Journal
		God speaks to South Africa	Debate**	Reflection Journal
5	How Small is Small? (Chemistry)	Defining size	No Activity	Discussion Forum (on Blackboard)
		What, how and how fast?	Chem Magic Show	Discussion Forum (on Blackboard)

* These activities required students to visit off-campus locations
* These activities brought off-campus speakers/presenters to the UFS campus

Table 1: Summary of the units

Additional to attending the lectures, learning activities and completing assessments students were required to prepare a selection of reading materials each week, and were required to complete the two online module evaluations.

All students were required to enrol in tutorial groups via Blackboard and were assigned a designated learning facilitator, and these groups served as the platform for graded online discussion forums and provided structure for marking purposes.

Module outcomes and ground rules for learning

This section of the report aims to provide evidence to understand the extent to which the overall module outcomes for UFS 101 were attained during the pilot study. Whilst it was not possible to test the attainment of these module outcomes objectively, evidence that could serve as indirect evidence of the attainment of these objectives was gathered from various sources. The sources used to obtain evidence for the attainment of these outcomes included: questions in the online evaluations (closed and open-ended); feedback from learning facilitators; student contributions to assessment tasks and lecturer feedback.

The **module outcomes stated for UFS 101** were that upon completion students would demonstrate the ability to:

- Explain the **value of different disciplinary perspectives**;
- Apply different disciplinary perspectives as part of their **critical thinking;**
- Demonstrate basic **reflective academic reading, writing and argumentation skills**;
- Reflect on how higher education **empowers citizens to engage** with local and global 21st century challenges.

Apart from the module outcomes which were stated, a number of **ground rules for learning** were also provided to students. These ground rules were intended to articulate the expected manner in which students should engage with each other within the module in order to promote critical thinking and productive debates. These ground rules included: respecting others' opinion and point of view; not attacking other students verbally; not assuming that others are wrong before considering their perspective; being willing to appreciate both sides of an argument before making a decision and reasoning above emotion. Again, there was no direct test of whether or not these ground rules were followed, but student responses to all the discussion forums, as well as their posts on Facebook and their contributions in essays/reflection journals were analysed to find evidence of whether students were able to follow these rules of engagement. Feedback from learning facilitators and student responses to the online evaluation were also taken into account.

Evidence from online evaluations

The first source of evidence that will be used to examine the attainment of the module outcomes is the final online evaluation. In this evaluation, students were asked the following open-ended question:

Thinking back on all of the Units you have completed in UFS 101, what was the most important thing that you have learnt?

Student responses to this item included both general and unit specific responses. Unit specific feedback will be presented under the analysis which deals specifically with each unit, whilst the general feedback (where relevant to the module outcomes) will be incorporated in this section of the report.

The general responses to this question can be grouped according to the following themes: **reasoning beyond emotion** (13), **respect for others' opinions** (20), **thinking from diverse perspectives** (18) and **critical thinking** (23). Each of these themes can be linked back directly to either the module outcomes or the ground rules for learning, indicating that students were aware of their growth and development in these areas and suggesting to some extent that the overall module outcomes are being achieved.

In response to this open-ended question students provided responses such as, "The most important thing I learnt was":

> *"To try to reason above emotion, but is a skill I can still improve on."*
>
> *"To view all thing objectively leaving emotions out of and arument and to provide valid fact in an argument"*
>
> *"respect, respect, respect for others and to think just a little bit further than what is expected of me."*
>
> *"that to some issues in life there are no right or wrong answers but you can educate and equip yourself to make the best decision in really difficult situations"*
>
> *"For me personally is to free you mind and think about all possible perspective of a situation. Not whether you are right or wrong in your thinking but just the fact that you think is very important"*

Additional to this open-ended question, students were also asked by means of a series of closed-ended questions to indicate to what extent their participation in UFS 101 contributed to their ability to: respect the views of others even if they do not agree with them; reason above emotion; appreciate both sides of an argument before making a decision and think critically.

By far the overwhelming majority of students indicated that UFS 101 contributed to their ability in all four of these areas. The area of least agreement was reasoning beyond emotion and the area of strongest agreement was respecting the views of others.

Figure 2 below shows the percentage of students who agreed and strongly agreed that UFS 101 contributed to their development in all three of these areas.

UFS 101 contribution to attainment of module outcomes
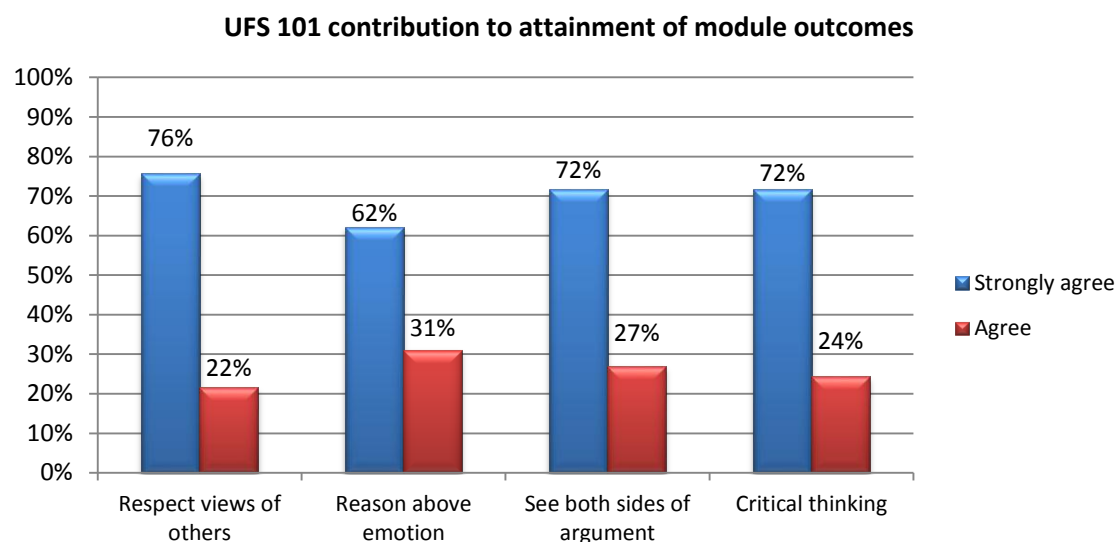
Figure 2: UFS 101 contribution to attainment of overall module outcomes

There was almost no disagreement with these statements. For example, no students indicated that UFS 101 did not help them to respect the views of others, and only two students indicated that they were undecided in this regard. Furthermore, no students indicated that UFS 101 did not help them reason above emotion (only 4 were undecided). Only one student indicated that they were undecided about whether UFS 101 helped them to consider both sides of an argument before making a decision, and none indicated that UFS 101 did not help them at all.

Thus, the student responses to both the closed and open-ended questions confirm their growth in the areas of respecting for others' opinions, reasoning beyond emotions, critical thinking and seeing the value of diverse perspectives, supporting the assertion that the module outcomes are being achieved (at least to some degree).

Students were also asked the extent to which UFS 101 helped them to write academically and improve their academic argumentation skills.

UFS 101 contribution to academic skills

Chart showing percentages for two categories:

Academic writing:
- Strongly agree: 51%
- Agree: 32%
- Undecided: 11%

Academic argumentation skills:
- Strongly agree: 64%
- Agree: 26%
- Undecided: 7%

Legend:
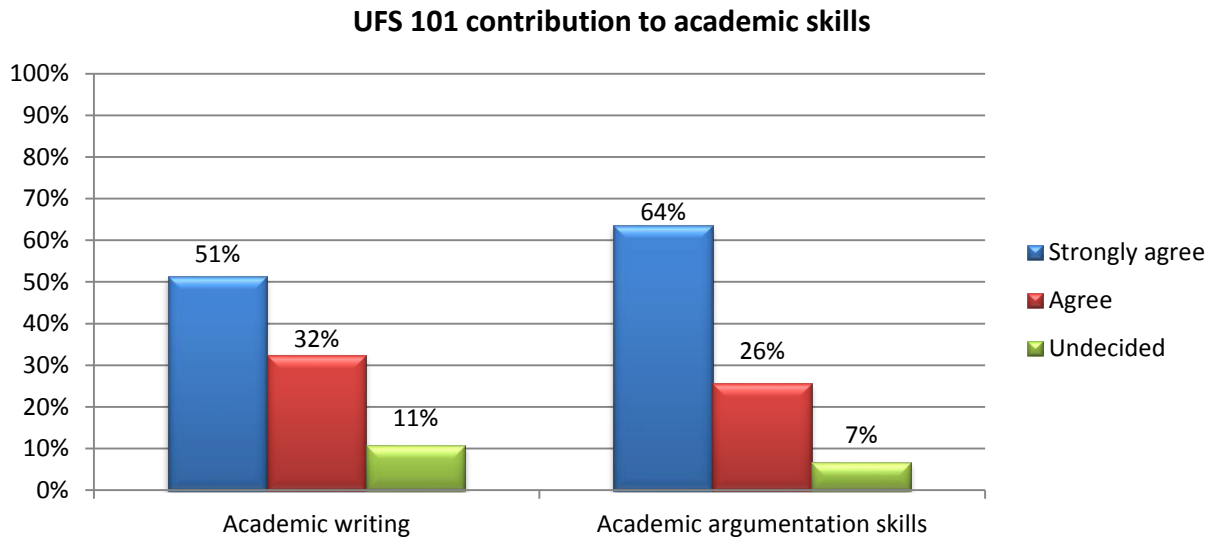- Strongly agree (blue)
- Agree (red)
- Undecided (green)

Figure 3: UFS 101 contribution to academic writing and academic argumentation skills

Although there is still general agreement with these statements, this is less pronounced than the agreement with the previous statements. For example, only half of the students indicated that UFS 101 had contributed to the improvement of their academic writing, and around two-thirds of the students indicated that they had grown in the area of academic argumentation.

The areas of developing academic reading skills, developing academic writing skills and being empowered to deal with 21st century challenges were not explicitly listed by any student as being the most important thing they had learnt from the module. In fact one student remarked that UFS 101 was least useful for the development of academic reading and writing:

> *"It did not help me improve my writing and argumentative skills, I can think critically but putting that into paper is a difficult task for me. regardless of the feedback I get."*

It is of course possible that students are developing these skills, but just that they are not directly aware of their progress in this regard. Feedback from learning facilitators suggests that student responses to discussion forums were in fact improving over the course of the module. The following comments were made by the learning facilitators:

> *"I found the second assessment very meaningful to students. Though taxing on the marker, the draft and feedback system was especially useful in improving students' writing and argumentation skills."*

> *"I think that by this unit students were beginning to employ the feedback gained during previous assessments. I could see that the students in my group were starting to engage in the discussion*

forum by giving their opinions, but also ensuring that they thoroughly answered the question based on the assessment rubric."

Thus, based on the learning facilitator feedback and student responses to open and closed-ended questions related to academic writing and reflection skills it is concluded that there is some evidence of growth in these areas, but that it is not the most noticeable change for the students themselves.

The only overall module outcome that was not mentioned in either the student or learning facilitator feedback was how the module encouraged them to reflect on how higher education empowers citizens to deal with local and global 21st century challenges. Again, the fact that this was not mentioned by the students in the evaluation is not necessarily an indication that this outcome was not attained – students may just be less conscious of their growth in this area. Indications are that students felt specific units helped them to reflect in this manner (as will be evident in the unit specific discussions), but it was not in the forefront for them when considering the entire module.

Evidence from student assessment tasks

In order to collect evidence from the student assessment tasks, the learning facilitators were required to submit on a weekly basis the names of the two top performing students in their group, and the names of the two lowest performing students in their group. This maximum variance approach was decided upon because that there was neither time nor capacity available to analyse all student responses to all tasks. By examining the two strongest and weakest contributions the evaluator can get a sense of the types of contributions made and minimise the risk of only focusing on positive/negative evidence to understand the attainment of the module outcomes. Specific evidence from these assessment tasks as they pertain to each of the individual unit outcomes will be discussed under each specific unit. In this section of the report student assessment tasks from all five units were gleaned in order to get a sense of whether the overall module outcomes were achieved.

The quality of student responses to assessment tasks was greatly varied. For all assessment tasks, there were students who demonstrated above average ability to apply critical thinking, examine issues from different perspectives and demonstrate an appropriate level of academic writing and argumentation skills. At the same time, for each of the assessment tasks there were students who demonstrated little, if any, of the above-mentioned skills. However, for the most part student performance (i.e. the grades they received) in the assessment tasks was average to above average suggesting that the overall outcomes have been achieved at least to some extent (a detailed discussion of student performance within each assessment task is provided in a later section on assessment in this report).

This evidence however should be interpreted bearing the following in mind. First, there is no baseline data to compare students against in terms of their writing skills, argumentation skills, critical thinking ability and ability to see things from different perspectives. Thus, it is possible that those students who performed well in these areas within UFS 101 came into the module with a greater level of these skills and that this accounts for their performance. Second, it must also be acknowledged that developing these skills is not a once-off event, but rather a process that takes place within the individual over time and that it is not realistic to expect that students would demonstrate flawless ability to apply these skills during and at the end of this module. In order to better understand the contribution of the module to these outcomes it would be necessary to gather baseline data from students at the start of the module and compare their skills levels at the end of the module. However, even after taking into consideration these two factors, the evidence that is presented throughout this report does suggest that participation in the module contributes to this developmental process for the majority of the students who continued to participate in and complete the module.

Regarding the ground rules for learning, it is concluded that for the most part student responses to assessment tasks were within the stipulated boundaries set out for them in the module guide. Only a few isolated cases were identified where the ground rules for learning were violated.

One example of a violation was in the discussion forum pertaining to the death penalty where a student made the following remark:

> *"people that kill people for a cellphone or R50 have no fear for our law or any other authority. They act like animals and expect to be treated like humans. "*

Although this student has not attacked any other student or disrespected the argument of a fellow UFS 101 participant, their response in this forum reflects a highly emotive reaction and could be considered by some as bordering on hate speech. The learning facilitator did not address the comment directly in the discussion forum, and provided the following individual feedback to the student in BB:

> *"Well discussed and set out, be careful as the last part of the first post becomes very emotive, even though it is a value the majority might share, rephrase next time for safety".*

Although the incident was isolated, it was not handled in a manner that promoted the learning and development of all the students in the tutorial group. Given that the comment was made in an open discussion forum, it would have been more appropriate to address the comment on the discussion forum (to illustrate to students that such comments are not acceptable and serve a didactic function for

the rest of the group) and perhaps have been more directly addressed in the personal feedback to the student.

Whilst it is encouraging that there are only a limited number of comments of this nature, the manner in which the post was handled by the learning facilitator highlights the critical importance of LF training in how to identify and deal with inappropriate responses from students – particularly from the perspective of promoting social cohesion amongst students.

Unit outcomes

Additional to the module outcomes, each of the five units had a set of specific outcomes. This section of the report will examine evidence that students have attained these outcomes by providing a brief discussion on each unit. In order to evaluate the attainment of these outcomes, student responses to each of the assessment tasks were analysed, feedback from lecturers, the implementation team and learning facilitators was considered, and student responses to the online evaluations were examined.

How do we deal with our violent past?

The purpose of this unit was stated as:

> *"to **introduce you to historical thinking**; that is, to demonstrate and teach **the ways in which historians think about social problems**. The unit does not pretend to make a historian of you; that would require years of training. However, it does presume **that understanding the logics and processes of historical thinking can prepare you to grapple more meaningfully with compelling human problems in the contemporary world and, of course, in current day South Africa."**

The outcomes of this unit were that students should be able to demonstrate the following skills and understanding:

- Understand the meaning of a historical event;
- Think critically about a historical event and link the knowledge to a contemporary problem;
- Reason above emotion; and
- Achieve greater balance in reasoning (see both sides of an argument).

The purpose and outcomes of this individual unit align well with the overall module outcomes, as well as with the stated ground rules for learning. An examination of both the assessment tasks for the unit indicated that these tasks were well aligned both with the specific unit outcomes and the overall module outcomes.

Both Prof Jansen and Dr Jan-Ad Stemmet who presented in this unit received tremendously positive feedback from students, learning facilitators and the implementation team. Examples of individual comments include:

> *"Prof Jansen is absolutely amazing! I could sit and listen to him all day long!"* (student comment)

"I think Dr. Jan-Ad Stemmet should be used to present a morning session, as the session that he presented this year was very interesting or he should be considered to co-present with Prof Jansen." (comment from implementation team member)

"Dr. Stemmet should be retained. Students enjoyed his session tremendously" (comment from learning facilitator)

An examination of student responses to the two assessment tasks brought to light the following trends:

a. The quality of student responses included both excellent and very poor contributions. Some students demonstrated clearly the ability to answer the question posed adequately by following instructions and taking into account the rubric provided. Other students did not demonstrate this ability at all.

b. Despite the sensitive and controversial nature of the topics under discussion, for the most part, students were able to provide non-emotive responses and show respect for the opinions and arguments of others. In one of the forums a student posted an irrelevant/inappropriate comment, however within the discussion forum the learning facilitator provided feedback on this and ended the discussion thread timeously. The effective handling of this type of comments by the learning facilitator highlights the critical role the facilitators play within the module, and the importance of providing high quality training in how to deal with sensitive matters.

c. The use of grammar and spelling of the comments posted by students is generally poor, and reflects a somewhat careless attitude.

d. Related to language issues, one additional problem that arose in this unit related to the language of instruction. Although it was made clear to students that the language of instruction was English, a number of students made their posts on the discussion forum in the first assessment in Afrikaans (effectively excluding some students from participating in the forum). The situation was immediately dealt with by the implementation team, an official statement was released to all students and all future assessment tasks were submitted in English. It will be important to articulate clearly right from the outset of the module in 2012 that all assessment tasks must be completed in English in order to avoid any confusion among students.

In summary, although the unit outcomes of presenting an argument in a non-emotive manner and considering both sides seems to be achieved to some extent, at times it appeared as if students did not have enough of a historical understanding of the South African history in order to interpret the historical event in the context of contemporary problems.

What does it mean to be fair?

This unit introduced students to the fields of law, ethics and morality.

The outcomes of this unit were that students should be able to demonstrate the following skills and understanding:

- Understand the complex and interconnected world of law, morality and ethics
- Reflect on the role of law in facilitating peaceful co-existence
- Demonstrate respect for diversity of opinions
- Demonstrate the ability to critically reflect on the issues above using reading, writing and argumentation skills

The purpose of this unit was not as clearly stated in the module guide as was the case with Unit 1. Stating the purpose of the unit at the start of the unit is useful for helping students get a sense of what the focus of the learning material is and it is recommended that the purpose of the unit is articulated clearly to students at the start of each unit.

Overall, the outcomes of this unit align well with the overall module outcomes, as well as with the stated ground rules for learning. However, the outcomes for the unit can be readjusted slightly to be more aligned with the content of materials/lecture (specifically for lecture 2) to highlight how the unit will help students to examine issues from the utilitarian perspective. This recommendation is based on the observation of the evaluator, as well as input from the implementation team.

There was much positive feedback from students regarding the unit presenter, Mr. Ellis. One student made the following comment in the online evaluation:

"Mr Ellis really impressed me! He knows soooo much and is just dying to share it with us!"

An examination of student responses to the two assessment tasks brought to light the following trends:

a) As was the case with Unit 1, the quality of student responses included both excellent and very poor contributions. Some students demonstrated clearly the ability to answer the question posed adequately by following instructions and taking into account the rubric provided. Other students did not demonstrate this ability at all.

b) One of the trends that emerged was that student responses to the discussion forum on the death penalty were more focussed on their personal beliefs than on the materials/arguments presented in the lecture. At least half of the student responses to the assessment task related to

the death penalty focussed on their own personal religious convictions. One learning facilitator remarked :

> *"Heated debate ensued in the discussion forums as students offered their opinions which were based on personal views rather than the information given during learning experiences."*

One of the possible reasons for this is the manner in which the question was posed. A slight revision to the question will make it possible to move students' responses from an emotive personal/religious response, to a more reflective response that looks beyond their personal belief to other elements in the debate.

Are we alone?

The purpose of this unit is to introduce students to the distinctive characteristics of planet Earth and the possibility of life elsewhere in the universe – one of the biggest scientific questions today.

The outcomes of this unit were that students should be able to demonstrate the following skills and understanding:

- Explain what astronomy is;
- Understand the complex processes involved in planet identification;
- Explain the importance of the scientific method in astronomy;
- Reflect on the value of investing in astronomy to answer the big questions.

The purpose and outcomes of this individual unit align to some extent with the overall module outcomes in the sense that the unit introduces the students to the way in which an astrophysicist thinks and relates the discipline to current real world problems in South Africa (the SKA project). There is some room for adjustment of the outcomes to move the emphasis away from content knowledge to a more applied focus. For example, "Understand the complex processes involved in planet identification" could be rephrased along the lines of "Understand the complex processes involved in planet identification and the implications of finding life on other planets"

An examination of both the assessment tasks for the unit indicated that these tasks were aligned both with the specific unit outcomes and the overall module outcomes. However, the first assessment task is focussed exclusively on content knowledge (see discussion under assessments) and could perhaps be revised to have a stronger focus on real world application.

Student feedback related to this unit indicated that although some students found the topic interesting, many students found the material difficult to engage with, a sentiment that was echoed by the implementation team. A total of 20% of responses to the question *"What was the least useful thing about UFS 101?"* referred to elements of Unit 3 (either the lecture or Boyden visit).

The comments below reflect these two sentiments:

> *"In reference to the Prof Matie Hoffman's unit I have learned to be broadly minded and think out of the box. The unit has really made me see the world from another angle, it has enhanced my imaginations. And now I believe I saw the World beyond what I can Physically see at the moment"* (student comment)

> *"The content of unit 3 was a bit complex and I found it difficult to stay focused in class. The visit to boysen was interesting but the lecture that was presented was structured in such a way that people who have never been exposed to astronomy found it difficult to keep up."* (student comment)

> *"Some of the jargon from the contents were just difficult for me to understand at some time. For example the astronomy part was difficilt for me to understand."* (student comment)

> *"The whole unit of are we alone should be tackled differently. make it more intersting for people who do not study astronomy"* (student comment)

> *"I think Prof Matie is a great expert in his area/field but should make the lecture more interesting"* (implementation team member comment)

An observation by the evaluator during one of the sessions for this unit was that there is a specific need to revisit the assessment tasks and in-class activities to provide additional scaffolding and support for students who did not have science as a Grade 12 subject. For example, for one of the in-class activities students were required to calculate the amount of time it would take for a planet to orbit its sun. In order for students to be able to complete this activity successfully they would need to know some basic scientific formulae that were not provided (it was assumed the students would know these). By simply revising the activity to provide more information (such as the formula to calculate speed) the activity can be made more "doable" for students from all backgrounds. Thinking through all the activities in both of the science intense units in this manner will be of vital importance in the 2012 roll-out, given that there will be many more students in the module who do not have a strong science background.

Did God really say?

The focus in Unit 4 was on the *use* or *misuse* of God. The premise upon which the unit is based is that God, or the concept God, is used or misused by humans, that this use or misuse can be intolerant and appalling; and that it is part of the reality which you as UFS students and eventually as graduates have to

intellectually come to terms with. The content of the unit provides students with the intellectual ability to identify, understand and critique 'God said' discourses in order to encourage tolerance and respect for religion and religious diversity.

The outcomes of this unit were that students should be able to demonstrate the following skills and understanding:

- Discuss the phenomena of "God says" discourses against a historical horizon globally and locally
- Identify the structure of "God says" discourses embedded in different genres
- Critically evaluate "God says" theological discourses both globally and locally
- Reflect on the consequences of "God said" theological discourses in the South African context
- Apply criteria to meaningfully coming to terms with the consequences of South African "God says" discourses in light of a need for reconciliation

The purpose of this unit was not as clearly stated in the module guide as was the case with Unit 1. Stating the purpose of the unit at the start of the unit is useful for helping students get a sense of what the focus of the learning material is and it is recommended that the purpose of the unit is articulated clearly to students at the start of each unit.

The specific unit outcomes for Unit 4 align well with the overall module outcomes of allowing students to take a different disciplinary perspective (Theology), to reflect critically on local and global issues and to articulate these through academic reflection and writing.

The two assessment tasks for this unit were very well aligned with the unit outcomes. The tasks of analysing a movie and the national anthem (poem) allowed students to discuss "God said" discourses historically from a local and international perspective. The content of the unit allowed students to reflect deeply and meaningfully on the consequences of "God said" discourses in the South African context, as will be evidenced in the discussion below.

Student responses to the online evaluation suggest that Unit 4 in particular was instrumental in getting students to question the underlying assumptions they use to interpret events and people around them. Unit 4 was mentioned a number of times in the open-ended question, *"What was the most important thing you learnt in UFS 101?"* It does appear that for the most part this unit successfully managed to get students to think critically about their beliefs. Some student reflections below support this:

> *"…., but I enjoyed the "Did God really say?" unit very much! That unit made me think and argue with myself about things I never even thought of!"*

> *"Unit 4: Did God really say. It really had me wondering and challenging all the time whether some situations in my own life is a calling or not. It thus let me examined difficult situations."*

> *"I think that unit 3 and 5 did not challenge me as much as unit 4(did God really say) it was more interesting than anything els."*

> *"Did God really say. This unit challenged me tremendously and it made me open my eyes to the fact that we all serve a different God, and we all intepret what he wants us to do on this earth differently"*

Although the unit facilitated a deep level of reflection and critical thinking for the students, various learning facilitators indicated however that students had some difficulty in being able to complete the second assessment task where they were required to reflect on the presence of "God said" discourses in their own lives, three learning facilitator comments related to this are provided below:

> *"I did feel though that students were much more successful in the first assessment, when they were given an abstract to analyse, than in the second assessment where they had to apply God says discourse to their own lives. Quite a few students in my group were non-religious and so had to come up with creative ways to apply this discourse – as a marker I was unsure as to where to draw the line in terms of the outcomes being met here. There were of course students who refused to answer the question and instead expressed their distaste of religion"*

> *"…. to some extent, they found it difficult to apply the questions of Unit 4."*

> *" unit 4 was very controversial and difficult for the students to understand and interpret the "God Says discourse" and how to put this in context in the journals they had to submit."*

Given that there will only be one assessment task per unit in 2012, it may be prudent to consider keeping the first assessment task (which requires students to reflect on God said discourses from a more objective perspective), than to ask them to write the reflection journals based on their own religious perspective.

How small is small?

The purpose of this unit is to expose students to the relatively new field of nanotechnology and the associated advantages and disadvantages. Furthermore, the unit exposes students to reaction-kinetics and half-lives to illustrate the importance of responsible citizenry in the realm of science in everyday life.

The outcomes of this unit were that students should be able to demonstrate the following skills and understanding:

- Explain what 'nano' is and how it is measured;
- Describe how nanotechnology can be used in everyday life;

- Reflect on the advantages and disadvantages of science and scientists' work;
- Think critically about the effect that science can have on world matters when it is considered as more than just "science".

The outcomes of this unit are well aligned to the overall module outcomes, especially in being able to help students reflect on how education and science relates to local and global challenges in everyday situations. Evidence from the online evaluations supports this – particularly with regards to 21st century global challenges.

The content of this unit (science and nanotechnology) is less likely to be in the realm of students' general knowledge, and it is even possible that a number of students in the module did not take science at high school (this will be particularly true in 2012 when all students are required to enrol). It is therefore possible that the content may be perceived as very difficult or hard for students to grasp, and thus important that the unit focuses on communicating the key concepts/ideas in a manner that is challenging, yet understandable for all students. Student feedback from the online evaluation suggests that the unit does manage to strike this critical balance, and still achieve the outcome of getting students to see the link between science and everyday life. Students made the following remarks:

> *"I wasn't really concerned about the daily activities that we as people do to stay alive and to maintain competitive advantage with the rest of the world,for example mining and extracting oil, but after Unit5 of the UFS101 I learnt that everything we do matters and that when we do what we do, we must be careful so that we don't inflict harm on our environment."*

> *"To say that prof Roodt's unit was mindblowing is a major understatement. I learned so much with regard to nanotechnology. The most important thing I learned though was to be more aware of the existance of nanotechnology in our everyday lives (I am certainly listening to advertisements with fresh ears and looking at them from a more informed perspective.)"*

> *"Prof A Roodt taught us that science does not only involve lab work and test tubes, it also plays a role in our lives."*

> *"The last unit by Professor Roodt was interesting especially for me as a commerce student and someone who has never done science before. It opened my eyes to a whole new dimension. It showed me how nanotechnology is improving and is still going to improve man's quality of life."*

> *"Prof Roodt did an excellent job,he made the subject interesting and his methods of delivery are praiseworthy."*

> *"I had never thought about nanotechnology before doing the 101 Module. It was a new concept to get my head around and I found the scientific language used in the reading material difficult but stimulating."*

"For the last unit it was somewhat difficult but I made time to do it. It was worth it."

Evidence from the assessment tasks and feedback from the learning facilitators does however suggest that the material was perhaps too complex for some students, and that they were not able to understand the work adequately.

One learning facilitator remarked:

> *"Personally, I had to attend the lectures twice to fully understand this unit – I think some of the other non-science orientated students may have been a bit lost here. There was too much information for a student without a science background to comprehend…. (from the assessments) …it was clear that students did not have a good understanding of the material."*

One student remarked:

> *"In unit 5, it was more difficult for me to understand some concepts discussed in the lectures, seeing as that I never took physical science as a subject at school, what was discussed in the lectures (order of magnitude etc.) was a bit hard to understand."*

One of the implementation team members commented:

> *"The Chem Magic show of unit 5 was interesting, but I think the lectures should be simplified. Some of the things were still above the students' level, especially from other disciplines/faculties other then Natural Sciences. Prof Roodt is excellent and he tried to simplified things, but I think the information was also a bit much as in Unit 3."*

Given that all mainstream students will be enrolled in UFS 101 in 2012, many of whom may not have a science background, it may be necessary to revisit some of the learning material for this unit in order to ensure that the materials provide adequate support for all students, including those who have not had science in Grade 12.

Level of academic challenge in UFS 101

One of the fundamental principles in the design of the UFS 101 module is to challenge students to go beyond themselves, and to consider the world from new and diverse perspectives. However, it is important to bear in mind at all times that whilst learning experiences should challenge students, they should not overwhelm students – it is thus essential to balance challenge with support.

In order to gain a sense of how students are experiencing the level of challenge in the module they were asked to respond to four fixed-response questions, but were given the opportunity to provide examples or elaborate after each question.

The questions posed to the students were (rated on a scale from *Strongly agree* to *Strongly disagree*):

"The level of difficulty of the content covered in this module is appropriate for first-year students."

"The content of the units challenged me to examine difficult issues from different perspectives."

"The content of the units challenged me to think in new ways about current 21st century LOCAL issues."

"The content of the units challenged me to think in new ways about current 21st century GLOBAL issues."

Figure 3 below reflects the percentage of students in agreement with each one of these statements for both online evaluations.
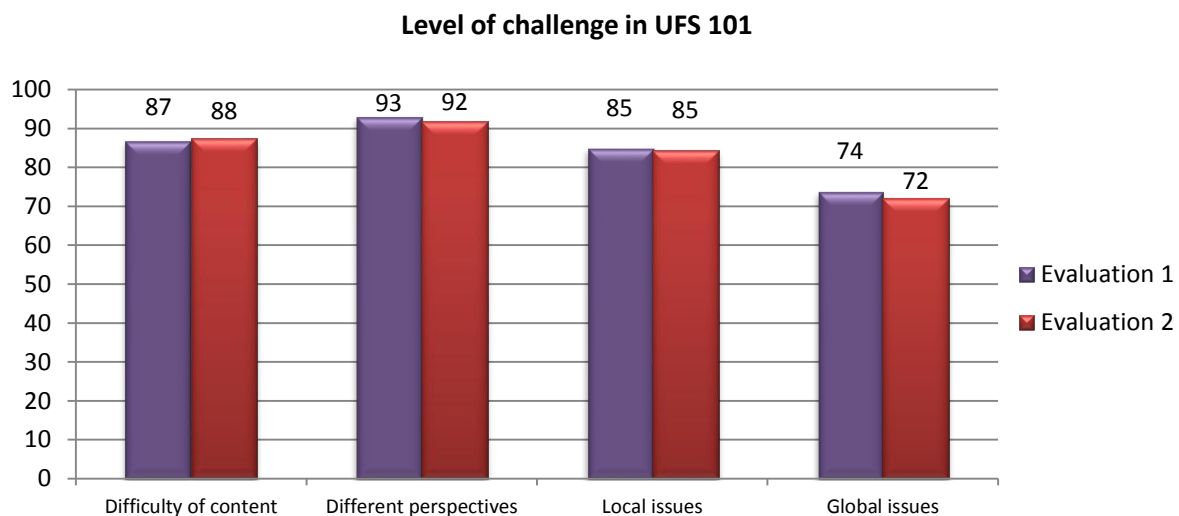
Level of challenge in UFS 101

Figure 3: Level of challenge in UFS 101 (percentage of students in agreement with statement)

Each of these individual items will be examined in the discussion below.

Appropriateness for first-years

The vast majority of the students in both evaluations indicated that the difficulty of the module content was appropriate for first-year students. From the qualitative responses provided for this question in both online evaluations, it appears as if most students are not overwhelmed by the level of challenge. The student responses provided below are examples of this:

> *"The questions we dealt with during this unit was very challenging for most of the students and difficult to answer but they were not impossible to answer one just had to think outside of your usual mindset."*

> *"The difficulty of this module does allow us to think and challenges us positively."*

> *"I am an accounting major yet I could fairly comprehend the content of all the units and where I fell a bit short, the availible materials on blackboard and the studyguide helped me to fill in the blanks."*

> *" … the topics were challenging, but on the same standard as other modules on a first year level. We were required to validate our statements and not just give answers like in school."*

> *"There were times that I struggled because you have to think deeper than normal. But I did it and I liked it."*

However, as was evident in the unit specific feedback, Units 3 and 5 are more challenging for students and appear to pose some problems in terms of students' ability to understand the content. In these two specific cases it is recommended that additional support strategies be investigated and that as much emphasis be placed on application of knowledge within the discipline, as opposed to solely the communication of content knowledge.

Additional to this, to a limited extent it appears as if language may be a factor that impacts on whether the level of challenge seems inappropriate to students. Comments from students and learning facilitators below focus on the level of the language used in the module.

> *"I don't have specific examples, i just think that for some (language X) speaking students, the materials are too complex and even the reading too complex to understand sometimes."*

> *"the questions where asked diferent in the tutor than to the reflection and was so big english not even the tutor could understand. i think (language X) would have helped"*

> *"A selective number of the appendices were written on a higher level of English as compared to what they are used to in their learning material. Although the glossary was available, the constant referral made some of the students lose track of their understanding with regard to the entire article." (learning facilitator quote)*

There were some worrisome comments given by students in the qualitative responses in Evaluation 2, indicating that students thought the module was primarily about subjective opinions, not challenging at all and not necessarily grounded in academic disciplines – however this type of sentiment was not widespread. Examples of these comments were:

> *"It is about your opinion. Not knowldege. Everyone can give an opinion"*

> *"there is nothing specialised about what we did and i think that anyone with an opinion will be able to handle this module"*

Based on the evidence presented it appears that overall there is an appropriate level of challenge in UFS 101, but that some additional support is necessary in the science-specific units.

Examining difficult issues from new perspectives

The overwhelming majority of the students in both evaluations agreed that they were being challenged to examine difficult issues from different perspectives. Student comments in this regard highlighted how they saw things in their own personal lives from new perspectives and how they saw things from new disciplinary perspectives:

> *"Hearing the other opinions really changes yours. So you get to look at diffrent thigs from a diffrent perspectives. All these questions asked seems simple but when another part is added you perspective changes"*

> *"i used to be stereotype with regards to some of the topics but now i am more informed and open minded."*

> *"One has preconcieved ideas about life because of their ignorance. these topics helped me to rethink cetain things in life and to realign my thinking based on the information that I has aquired."*

> *"The unit on "did god really say" had me thinking about things outside of my religion, which was difficult, but interesting."*

> *"As previously mentioned, not everybody has the same subjects. But when you look at the lecturer talking about his subject, you want to think like them - to see what they find so interesting about this particular subject."*

However, as can be expected some students did find the task of viewing things from diverse perspectives too challenging (even to the point where they disengaged from the process of trying):

> *"It did not challenge me to think in new ways because once I've made up my mind about a topic it is very hard to convince me otherwise. I am very stubborn"*

The theme of seeing things from different perspectives emerged strongly in the open-ended question asking students to indicate what the most important thing they had learnt in the module was (as discussed earlier). It is thus concluded that the generic module outcome of getting students to engage with material from diverse and new perspectives (personal and disciplinary), is being achieved– at least within the context of the classroom and assessment tasks.

Thinking in new ways about local challenges

The vast majority of students in both evaluations agreed that they were being challenged to think in new ways about local 21st century issues.

A number of responses in both online evaluations suggest that students have not only become more locally aware related to the specific module content, but are now more aware regarding local matters in general. The student responses to this question presented below illustrate this clearly:

> *"The unit of "How do we deal with a violent past" was not mainly about the past. It raised everyday issues that we see and hear everyday on the news. This therefore made me to watch news everyday and read newspapers. These are the things I seldomly did, but now it's different.*

> *"I learned to pay more attention to the affairs of South Africa, its local issues, as well has events that have happened in the past. Previously, I was more concerned about general international issues, rather than what was happening in my own backyard….. It broadened my perspective on matters that took place, or is currently happening in our country."*

> *"I totally agree, more especially the Johannesburg Acid Mine Drainage Crisis article. I realised that we as citizens must take good care of our country and make sure we have in place measures to ensure environmental sustainability."*

> *"SKA, effects of Apartheid, religious disputes, acid mine drainage, nuclear energy and oil spills are all 21st century issues. Although some of these issues can be viewed as international issues they are also of importance to South African citizens."*

> *"The last assessement on how our environments are being damaged by oil and acids was more informative. It was a local subject on things that affect us locally yet our citizens are not informed on all of what is happening."*

Only one student in Evaluation 1 strongly disagreed that the module challenged them to think in new ways about 21st century local issues, and gave the following comment: *"No guidance on how to think in this way was given."* In Evaluation 2, 6 students disagreed that the Units 3-5 challenged them to think in new ways about local challenges, and two gave the following comments

> *"I still feel and believe that nothing has changed regarding the way i think about the current 21st century local issues."*

"i still think the way i used to before i did the units"

Although the theme of thinking in new ways about 21st century local challenges did not emerge at all in the open-ended question asking students to indicate what the most important thing they had learnt in the module was (as discussed earlier), student responses to the questions related to local issues do in fact indicate that they are able to make the link between the unit content and real world South African challenges. It is thus concluded that the generic module outcome of getting students to engage to think in new ways about 21st century local challenges is being achieved to some extent. As indicated in the unit specific discussions, revisions to unit 3 (more specifically some of the unit outcomes and the first assessment task) should be considered.

Thinking in new ways about global challenges

Although most students in both evaluations agreed that they were being challenged to think in new ways **about global 21st century challenges**, more students agreed that there was an emphasis on local challenges.

This sentiment was articulated by various student comments, for example:

"...more attention was paid to South African issues even though many relevant events occurred on an international stage during the units (e.g. the London Riots, the idea of a second dip in financial markets and the mounting debt crisis in the US." (Evaluation 1).

Furthermore, their comments regarding thinking differently about global challenges were less convincing than their responses to the question related to their awareness of local challenges (in both evaluations.

However, from the responses to the open-ended question specifically related to how UFS 101 helped them think in new ways about global challenges, students were able to apply the examples they covered in the module accurately within their responses. For example,

"The discussion forums regarding issues such as Fkushima were very relevant in gaining insight about Global issues and where humans have failed in the past and what must be improved in the future."

Some students were also able to make the link between local and global challenges:

"Local and global issues are intertwined and the last three units highlighted this for me."

In summary, although the theme of thinking in new ways about 21st century global challenges did not emerge at all in the open-ended question asking students to indicate what the most important thing

they had learnt in the module was (as discussed earlier), student responses to the questions related to global issues do in fact indicate that they are able to make the link between the unit content and real world global challenges, as well as between local and global issues. It is thus concluded that the generic module outcome of getting students to engage to think in new ways about 21st century global challenges is being achieved to some extent.

Dealing with sensitive topics and issues

Whilst the majority of students experienced the units positively, it was also clear that the material and activities did cause some level of discomfort for them. Creating discomfort is an intentional mechanism to challenge students and facilitate learning. However, when the material is of a sensitive nature it is important to ensure that adequate support and encouragement is provided to students. From the qualitative feedback it is concluded that some students appeared to be able to resolve this type of conflict within themselves (at least to some extent), whilst other students appear to remain very uncomfortable, and did not manage to reconcile matters adequately. This came to the fore in both Evaluation 1 and 2.

Two student responses in Evaluation 1 provided below illustrate this:

Student A was faced with a situation where he/she had to revisit a viewpoint they had held onto strongly in the past. Whilst the student does not suggest their view has been changed entirely, their response clearly shows how their viewpoint about a sensitive matter has been mediated by the learning experiences within UFS 101.

> *"I believed firmly in meritocracy: ability should be the only entry requirement to an academic institution. I had not considered the vast history that lies silently behind that ability. Historical reasoning was a new perspective on present problems."*

On the other hand, Student B was confronted with an emotive issue, but was not willing to engage with this at all – possibly suggesting a need for some form of a personal support forum where students can engage in a one-on-one manner about highly emotional/sensitive matters, and in this context unpack some deep issues they bring along with them to the university environment.

> *"I've already personally dealt with the issues discussed and do not wish to dig them up again."*

From the qualitative responses provided in Evaluation 2 it is evident that students continued to be challenged to deal with sensitive issues and to confront their own assumptions. Two examples from Unit 4 (Did God really say?) are given below:

> *"As I mentioned, Unit 4 made me think so hard and I even had to talk to my parents about that certain topic. I never thought about God said discourses in such a way, it was amazing!"*

> *"Especially the God said discourses because I never saw apartheid as a god said discourse until we did the unit. It brought light to what i assumed apartheid came from."*

Thus, although it is not an explicitly stated outcome of the module, the content presented to students does challenge them to rethink the way that they have seen the world, and some of the assumptions they use to interpret it.

Effectiveness and quality of lectures, tutorials and learning experiences

Lectures

Lecturers

Figure 4 below shows the percentage of students in Evaluation 1 and Evaluation 2 who indicated that all their lecturers were well prepared, communicated clearly, encouraged discussion and facilitated activities well. As can be seen from this figure, almost all students indicated that all the lecturers were effective in all of these areas at Evaluation 1 (i.e. Unit 1 and 2).

A somewhat different pattern is noted in Evaluation 2. The vast majority of students (88%) still agreed that the lecturers were well prepared, but significantly lower numbers of students agreed that the lecturers were able to communicate clearly, encouraged discussion and facilitated activities well. The most concerning area was encouraging discussion in class, where only 51% of students agreed with this (compared to 91% in Evaluation 1). This may be partly due to the nature of the materials presented (i.e. astrophysics and nanotechnology rely more on factual information than debates), however in order to encourage active learning alternative ways of encouraging class participation (such as small group discussions or tasks in class) could be considered. In the context of the drastic drop in student ratings on these elements it will be necessary to make some revisions for the roll-out in 2012.
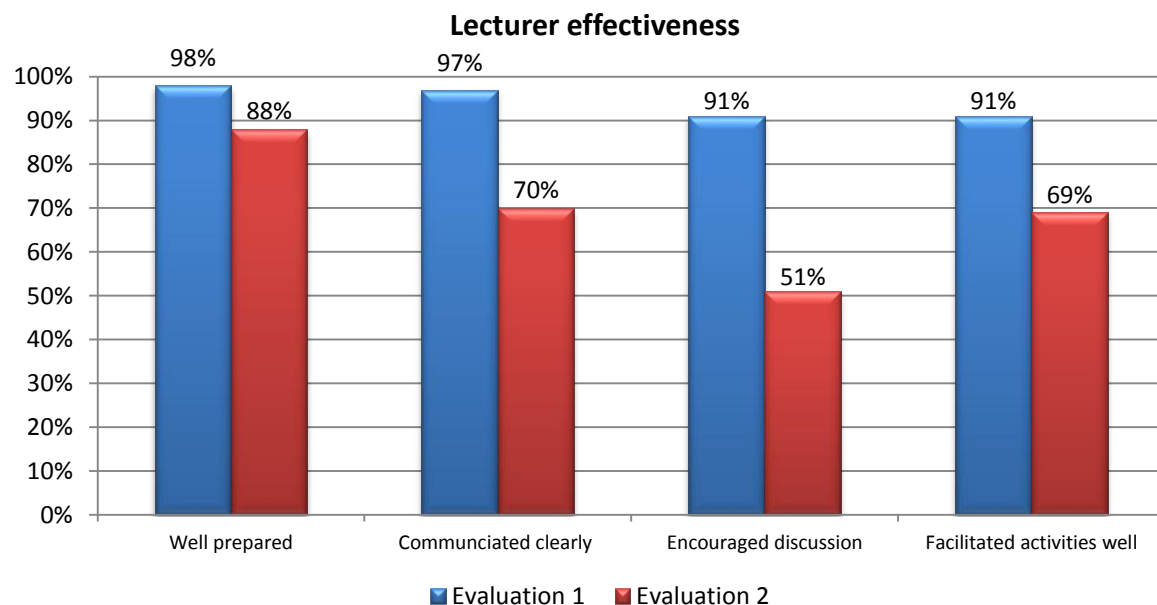

Figure 4: Lecturer effectiveness (percentage of students in agreement)

The tremendously positive response in **Evaluation 1** is confirmed by the student comments to the open-ended question related to the lecturers. Some of the student comments regarding the lecturers are given below:

"The lecturers were fantastic. Great speakers, intelligent, well informed and funny.:-)"

"they were brilliant"

"They were the best lecturers i've ever had."

"They were 100% perfectly prepared for every lecture and even though the technology didn't always play along, they didn't let that get them down"

"I just wish that all lecturers were full of energy and were able to interact with students more freely like the ones for this module."

As can be expected from the responses to the closed-ended question relating to the lecturers, in Evaluation 2 student comments included a blend of negative and positive feedback. For example:

Positive

"Prof Jansen, Prof Roodt, Mr Ellis were interesting ,vibrant and alive"

"The lecturers were amazing and experts in their field."

Negative

"Some units didn't allow in class discussions which dampened my concentration level. If possible, I think every lecture should have in class discussions"

"these lecturers were more sharing thier knowledge on the unit than encouraging discussion but I guess some units were more sensitive to discuss than unit 1 and 2. But the lecturers demostrated clear understanding and were well prepared. 10 outta 10"

"Some lectures needed enthusiasm"

"I found that there was a language barrier that made it difficult for some of the lecturers to make their point clear."

"some lecturers needs more ENERGY!"

The intimate nature of the pilot had some advantages that will sadly not be prevalent in the 2012 model, for example the sense of belonging that comes from having personal interaction with a professor and having a professor "know your name". One student made the following comment:

"I have been very impressed that the professors remember who I am when I bump into them while walking around campus. It shows they don't just see us as another class to be taught. It was a very happy experience knowing they remembered my question enough to remember me. It is nice to be noticed and not just stuffed with knowledge."

Overall, the high quality of the lecturers (especially for unit 1 and 2) is an area of strength within the UFS 101 module. In the 2012 roll out, the continued excellent teaching quality will contribute to promoting the good practice of "putting at least one great lecturer in front of each student in every year!" [1] However, it will be important to identify ways in which to promote active participation in those units that do not naturally lend themselves to class discussions.

Preparation for class

Students were expected to prepare for all lectures beforehand, and clear instructions in this regard were provided throughout the module guide.

In **Evaluation 1,** there were only 3 students who indicated that they never prepared for lectures, and of these 3 students 2 indicated that the reason they never prepared was because they did not have sufficient time. More than half of the students (54%) who completed the evaluation indicated that they prepared for some units and not for others. The reasons these students provided for this were: (a) the materials were too complex to understand (26%); (b) there was insufficient time (33%); (c) the material was not interesting (23%).

Students were also allowed to give additional reasons for their lack of preparation in an open-ended question, and responses related to two dominant themes:

(a) Too much material to read:

"Some of the reading material was just too long and too much" and

"It was sometimes just TOO much to read when I felt that it is not necessarily something I care that much about to know. And after the first class, i realised that reading the materials did not really matter for me to understand the lesson ……"

"The preparation content should be made shorter so that it easier and quicker to read and prepare for classes"

(b) Importance of material in comparison to other classes:

"The topics were boring and I'd rather spend my time studying for my other subjects" and

"I did not think of it as that important in comparison to my other work"

In Evaluation 2, more than double the number of students indicated that they never prepared for lectures (increased from 3 to 7). Of the seven students who never completed readings for any of the last 3 units, as many as six indicated it was because there was insufficient time.

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[1] NISOD conference on Teaching and Leadership Excellence (May 2011)

Almost two-thirds of students (63%) who completed the evaluation indicated that they prepared for some units and not for others. The reasons these students provided for this were: (a) the materials were too complex to understand (17%); (b) there was insufficient time (80%); (c) the material was not interesting (21%).The number of students who indicated they did not do all the readings because they were too complex or were uninteresting was relatively similar between Evaluation points 1 and 2. However, the number of students who cited time as a factor increased greatly from 33% to 80%, suggesting that as other pressures and workload from other modules increased, students paid less attention to their responsibilities in UFS 101.

Students were also allowed to give additional reasons for their lack of preparation in an open-ended question, and responses related to the same two dominant themes as in Evaluation 1:

(a) Too much material to read:

"The reading material is too long for me to read and sometimes I can bored along the way. I prefer being in the class and the lecture explains the unit."

The current course in which i am studying is very demanding and did not have time to prepare in advance for all the lectures, however, i did atleast try.

(b) Importance of material in comparison to other classes:

"I prepared my own course's work and it was a lot of work to prepare for."

"I do not have enough time to do the assignments, prepare in advance, learn for my other subjects and do other varsity related things. I also do not like reading and some of the preparation was a lot of reading."

"It did not view it as more important than my other subjects. I rather did homework and preperation in my other subjects than prepare for the UFS101 lectures"

Given that students in 2012 will be participating in UFS 101 in addition to their required first-year modules, it may be necessary to consider decreasing the reading load required from students or creating more time between units. If responses to this question are linked to the student responses to the time management questions, a definite theme of "work overload" associated with UFS 101 begins to emerge.

Participation in class

One of the most encouraging findings in the report is that almost all students indicated that they either often or sometimes participated in class activities. This high level of active learning can be considered one of the strengths of the UFS 101 pilot.

However in Evaluation 1, four student remarks highlighted the important role that lecturers play in encouraging continued participation in class. From the student comments it emerged that lecturers should remain sensitized to the fact that students are being confronted with highly emotive, sensitive topics. Many students may even be confronted with these issues for the first time and may thus be unsure of their viewpoint or they might even be ill-informed. If student responses are ridiculed by lecturers, or if students are made to feel self-conscious/"stupid" for their contributions this may lead to non-participation in future lectures.

Examples of student feedback in this regard include:

> *".... being put on the spot with questions that we do not have an answer for and them getting a remark about how wrong it is causes that you do not want to take part in the discussions."*

> *"The lectures were sometimes unpologetic when some students were not able to express themselves orally, which made us sit there with terror and fear of getting the answer wrong when asked a question."*

> *"Not to put all learners on the spot. I don't mind it, but one of my friends left the subject because of that."*

It is thus recommended that the lecturers are sensitised to the impact of their reaction to student responses on the levels of participation in the classroom context.

Learning experiences

The UFS 101 module incorporates a blended approach to learning – encouraging participation and engagement in a number of different activities in a number of different contexts. Towards this end, students attended formal lectures, participated in online discussion groups, enrolled in face-to-face tutorial groups and visited off-campus sites as supplemental learning experiences throughout the module.

Students were asked about how relevant and how interesting each of the activities/experiences associated with the units were. Figure 5 below indicates the percentage of students who found the South African War Museum, the moot court, the Boyden Observatory visit, the debate and the Chem Magic show very interesting and very relevant to the learning material.
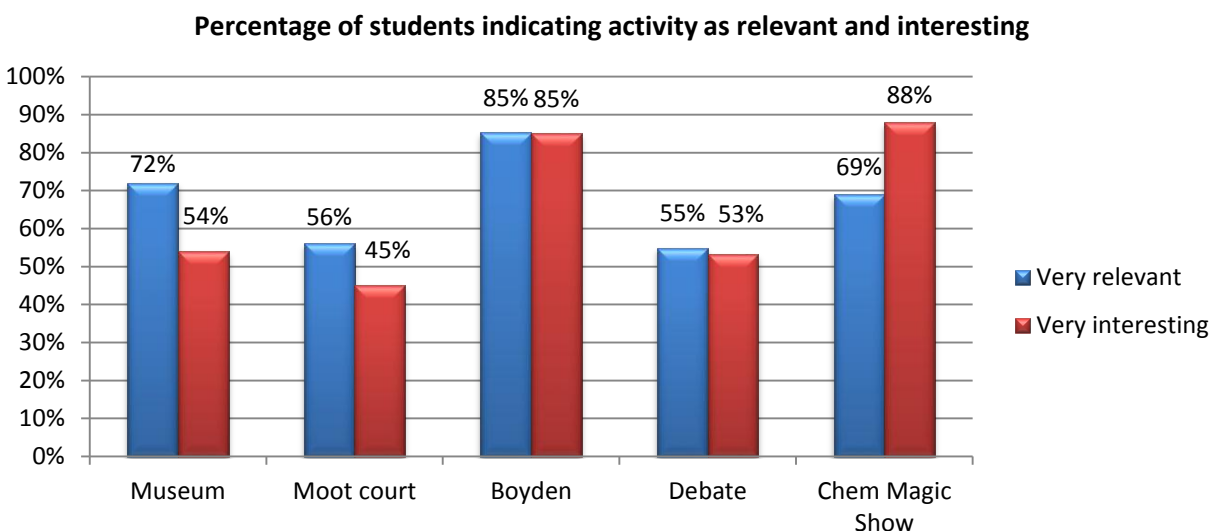
Percentage of students indicating activity as relevant and interesting

Figure 5: Percentage of students indicating activities as very relevant and very interesting

As can be seen from the figure, the two activities that were most interesting to the students were the Boyden Observatory visit and the Chem Magic show. The majority of students also indicated that the Boyden Observatory was very relevant to the learning material. The least interesting activity was the moot court and the least relevant activities were the moot court and the debate.

Almost a quarter of students who participated in the final evaluation provided positive qualitative feedback relating to the activities, only one qualitative comment was negative. Students said the following:

> *"All I can say it such activities do help in understanding each unit and help in critical thinking*

during discussion forums"

"these activities were very relevant and they helped us learn and understand the contents of the units better. Beside just sitting in class and listening to the lecturer, we had an opportunity to learn while getting some fresh air in a different place."

However, 11 students commented that timing and scheduling of activities created problems (concerns in this regard are also presented under the discussion on time management):

"I think there should be a wider / better choice of days and/ or times when one can attend because we often have to skip important classes (sometimes before tests where important information is given) to attend these activities as they are compulsory."

"the timing was very inconvenient for me.as a result didnt attend some activities,because afterall there are no credits for this module."

A more detailed analysis of student responses to the open-ended questions for each of the activities is provided in the discussion below.

South African War Museum

Student responses to the SA War Museum were quite polarised, with some students remarking *"not very interesting as I was shown things I already knew about and very unnecessary",* whilst others indicated "*the war museum was very enlightening".* The South African War Museum was mentioned by 7 students as the least useful thing about UFS 101 in Evaluation 1 (the second highest frequency in the question about what was least useful in the module), but interestingly not mentioned at all in response to this question in Evaluation 2.

Students raised some logistical concerns in relation to the museum visit such as the limited time *"we needed to stay longer at the war museum to read all the information ourselves to get make our own judgement of what happened, instead of just going along with the information that was tols to us"*; and the poor quality of the tour guide "*I couldn't always make out what the guy at the museum said when explaining the War to us."*

Arranging for 3500 students (as expected in 2012) to be transported to the SA War museum, and accommodating all these students in tours within the period of a week will present significant challenges to the UFS 101 team. In practical terms it will mean that as many as 60 museum tours will need to be conducted, and it can be expected that a number of students might not be able to attend the museum during the day due to their other modules and/or practicals. One alternative to managing the large number of tours, and the students who cannot attend activities during the day is to place a virtual tour of the museum in BB for students to watch. Another alternative would be to make the museum visit

optional for students who would like the supplemental experience, but to allow students to view the virtual tour as the activity. In either of these scenarios, the additional administrative load of obtaining statistics in BB and merging these with other attendance data must be taken into account.

The poor quality of the museum tour will need attention. One solution could be to train UFS 101 learning facilitators to present the tour as a means of ensuring quality, and to relieve the administrative load on the museum staff.

Moot court

The moot court session was held only once and was over a 2-hour period (whereas all the other activities were held in at least two time slots so that students could accommodate them in their schedules). The fact that it was held only once may have been a contributor to the low attendance of the activity (only 44% of the students attended).

The session was very lengthy (it ran even longer than the 2-hour slot), and a number of students stood up to leave the session before it was over – presumably to get to other classes.

> *"I only wish it were held during the time that suited us all, because I remember I only attended half the session and had to leave because I had class"*

Another student sent an email to the UFS 101 team indicating problems related to the length of the moot court:

> *"Time management is now becoming an issue, i almost mised a practical today because i did not want get out of the moot court while it was still in progress because it would be rude and against my personal values. So i plead that something must be done to manage time."*

In Evaluation 1, the moot court was mentioned by 12 of the students as the least useful experience in UFS 101 (this was the highest frequency for the question on what was least useful in the module), but only by 2 students as least useful in Evaluation 2. Their qualitative comments about this activity centred primarily around the length of the session and their disappointment due to the fact that it was not a real moot court. The session was not a mock trial (as implied by the name), but rather an interactive session with postgraduate law students and a high court judge. Half of the students who provided comments on the moot court indicated that the session was disappointing because they were expecting a court re-enactment:

> *"the Moot court activity was abit disappointing, i thought they were going to re-enact the court case or at least an extermly brief summary of what had happened.I still don't understand what had happened"*

Based on student feedback and input from the implementation team, it is recommended that the activity associated with this unit be a "real" Moot court, which will also help students to make a clearer link between the activity and the unit outcomes.

Debate

As was the case with the moot court, the debate was only held once during the afternoon. The timing of the event, as well as the fact that it was only presented once will have contributed to students not being able to attend this activity due to class commitments. Given that UFS 101 will be compulsory in 2012, and that attendance of all activities will form part of the assessment for the module, it will be necessary to present each activity at least twice in order to make provision for students who cannot attend sessions during the day.

Regardless of the fact that there was only one chance to attend, students were impressed by the prominence of the speakers who were invited to the campus to address them as first years adding an element of prestige to the module, as is highlighted in the comments below:

> *"The debate was by far the most stimulating. Please invite more prominent intellectuals to address us. It is really makes me appreciate academic attainment more when I hear someone speaking with erudition and conviction about a controversy."*

> *"The debate was just really amasing I do not think you could have chosen more prestigious and well educated spokespersons."*

> *"The debate was incredibly stimulating. I found the calibre of comment and analysis presented by the two speakers provocative. Their intellect and evident passion for their subject was tremendously enriching."*

On the other hand, the debate was very intellectual and required students to be able to listen, comprehend and process complex arguments. For some students this was overwhelming:

> *"The debate was very intelectual and didn't really enrich my understanding, because i couldn't understand it anyway."*

Feedback from the implementation team also suggested that the debate was "over students' heads" and that:

> *"In Unit 4, the debate was very nice for me but still think that students lost Christi van der Westhuizen on some places but she is very good. Maybe the people that will be participating in the debate should be briefed before about what type of students is in UFS101…"*

Furthermore, as was the case with the moot court, the name of the activity was misleading and students were disappointed that the session was not an actual debate, but rather an opportunity for the two speakers to present their views. One student remarked that it "*seemed as an ordinary discussion or speech.*" In order to avoid this in 2012, the name of the activity could be changed to panel discussion or the activity restructured to fit the format of a debate.

Some concerns were raised in the feedback from the implementation team about how to logistically handle the debate effectively with 3500 students in 2012, and it is recommended that careful thought be put into how to facilitate and encourage active participation from students in the session.

Boyden

Students enjoyed the visit to the Boyden Observatory very much, as evidenced in the high ratings of this activity in the closed-ended questions. One of the reasons why this activity is so valuable within the module is that it afforded some students an opportunity to visit an observatory for the first time in their lives, and for some students exposed them to a "whole new world", and they *"got a chance see things i didn't know like the telescopes".*

Many students were intrigued by the experience and provided feedback such as:

> *"The visit to Boyden was astounding and eye opening. I realised how large our universe is and how many answers it can reveal about our past. Seeing what we had learnt of in a practical application was very helpful and made things more accessible."*

> *"Going to Boyden was a fascinating experience. It was helpful to really see distant planets with my own eyes and not just pictures."*

> *"the visit to Booyden was one that I will never forget"*

Other students struggled to understand the content that was presented at the observatory:

> *"During the whole visit to the boyden observatory …. my mind kept on wondering off. most of the time i was confused as to what the whole point of this is was and what are the presenters talking about. "*

As has been highlighted in earlier discussions related to the content and activities associated with this unit, it may be necessary to provide additional support/scaffolding for students who struggle to

understand the science content – or to refocus the materials on the practical implications of the theory to make the knowledge more accessible to all students.

When examining the logistical arrangements associated with the Boyden visit (i.e. arranging busses, accommodation, food, wash up facilities etc.) this activity will present the UFS 101 staff with a significant challenge in 2012. In order to present each student an opportunity to participate in this activity it will mean that 11 trips (4 busses per trip, 44 busses in total) to the observatory must be made over a period of 4 weeks. At each of these excursions there will need to be at least 8 learning facilitators available and the Boyden staff will need to present the session to students.

Taking into consideration the costs and benefits associated with this activity, the UFS 101 team could consider making the activity optional (thereby decreasing the financial and administrative load significantly), and give students the option of watching a 3D IMAX (for example on the Hubble telescope) as an alternative.

Chem Magic Show

The Chem Magic Show was the activity that students found the most interesting based on their responses to the closed-ended question. In the open-ended question related to the activities, students expressed their appreciation of this learning activity:

> *"I was amazed when I realised that chemistry and science as a whole forms part of everyday life."*

> *"The other thing enjoyed was the science magic show(chem magic show) it just shows you how cool and interesting science can be."*

> *"One of the thing that stayed in my mind was in the Chem Magic show when they exploided the balloon filled wit hydrogen gas. It gave me a good imagination on what might have happened when the Fakushima power plant blasted."*

> *"The chem magic made chemistry look interesting and easy even though is not that easy for people who did not do chem at school."*

No recommendations/suggestions for improvement emerged from students, learning facilitators or the implementation team. However, one of the elements that make the Chem Magic show so exciting is that students can see the reactions "right before their own eyes" so to speak and thus when doing the show for 1500 or more students some of the "wow" element may be lost. If at all possible the Chem Magic show should be presented multiple times to allow students to experience the "magic" first hand.

Tutorials

In Evaluation 1 and 2 (94% and 93% respectively), the overwhelming majority of students indicated that they participate either *often* or *sometimes* in tutorials. The use of tutorials to supplement lectures is another one of the strengths of the UFS 101 model because it allows for even more students to participate in discussions than is possible during the lecture time. These tutorials will play a critical role in the success of the 2012 roll-out where classes will be very large (possibly in excess of 1500 students per class if only 2 lectures are held each week) and getting students to actively participate in class sessions will become far more challenging.

The comments provided by learning facilitators confirm the enthusiasm of the students in the tutorials:

> *" I really enjoyed it! I enjoyed interacting with my students. I loved how their faces would light up during tutorial discussions, their enthusiasm, ability to think and to entertain a topic or opinions of other students without necessarily accepting it. My students were interactive in class, even though I had some who were introverts, but I made certain that they knew that their opinion and contribution was anticipated and valued."*

> *"Also, especially during the face-to-face facilitation sessions, it was apparent that a few students really enjoyed and used the material optimally."*

> *"I only had 11 regular students in my group so getting them to engage was not too difficult a job. Some were more reserved than others and held back their opinions or went for the safe answers, but then you can see from the assessments that they picked up what others were saying and were more comfortable sharing their opinions in writing."*

Feedback from students on the effectiveness of their learning facilitators is provided below.

Learning facilitators

Student feedback on learning facilitators

Figure 6 below indicates the percentage of students who indicated that all their learning facilitators were well prepared, friendly, available, helpful and encouraged discussion in both Evaluation 1 and Evaluation 2. From the figure it is noted that the overwhelming majority of students in both evaluations agreed that their learning facilitators excelled in all of these areas.
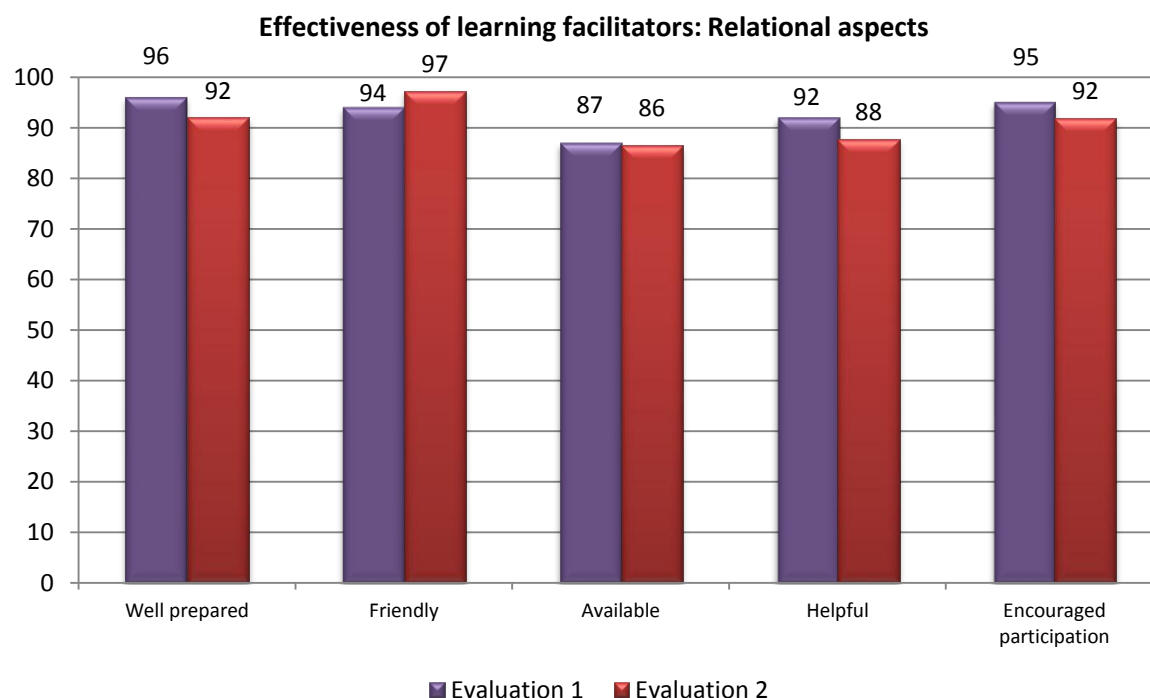
Effectiveness of learning facilitators: Relational aspects

Figure 6: Learning facilitator effectiveness (percentage of students in agreement)

Examples of student comments related to their learning facilitators from Evaluation 1 and Evaluation 2 are provided below:

> *"I love my facilitotor because she was always available and if you struggled with anything she is always there to help and explain things better"*
>
> *"She is so friendly and really encouraged group discussions"*
>
> *"I had the best learning facilitator!!! he listened with such enthusiasm to our discussions. I never got the impression that he judged us or pretended to have more knowledge than us. Instead he listened and asked questions and motivated. Tutorials were really wonderful"*

The quantitative and qualitative data above illustrates from a relational aspect, the learning facilitators did an excellent job. However, the evaluator was also interested in understanding the extent to which students perceived that their learning facilitator contributed to their learning and to the development of their writing and argumentation skills (i.e. the academic aspect of their contribution).

Figure 7 below indicates the percentage of students who indicated that the feedback from their learning facilitator helped them develop their academic writing skills, and helped them develop their academic argumentation skills. It can be seen from this figure that whilst the majority of responses are still positive, there is slightly less agreement with the second set of statements (related to the academic

quality of the facilitators) than with the first set of statements about relational aspects. Facilitating the development of writing and argumentation skills is not easy (especially in a peer-facilitated context), and the responses below should in no way be viewed as failure on the part of the learning facilitators.
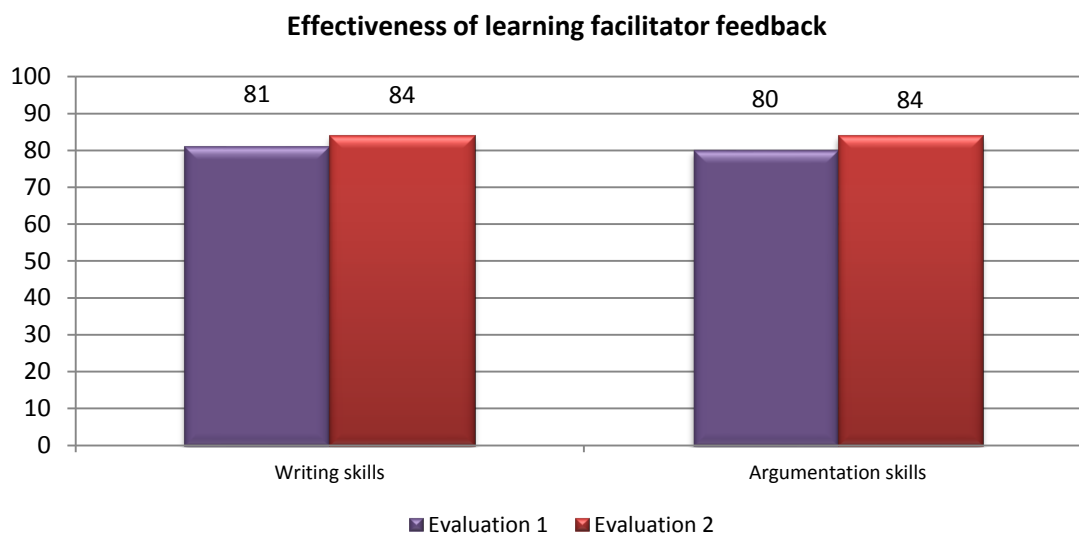
Effectiveness of learning facilitator feedback

Figure 7: Effectiveness of learning facilitator feedback (Percentage of students in agreement)

Student responses to the open-ended question about their learning facilitator, suggested that some students were very satisfied with the feedback they received, whilst others were not satisfied with the quality of feedback from their learning facilitators:

> *"feedback on these units were crucial for understanding and the facilitators did a perfect job"*

> *"Miss X's feedback on assessments were really helpful in improving my argumentation skills."*

> *"The comments on my assessment activities were too vague to be helpful. I once got 4 out of 5 for language and another time 5 out of 5 without knowing why. Similarly, there was only a different mark for content in two different tasks without an explanation to show me where I can improve."*

> *"I found that my feedback had a lot of the same phrases like "good work" for example. I want to know where I excelled in and where I performed poorly."*

The combination of qualitative and quantitative feedback again emphasises the critical importance of providing high-quality on-going training to all learning facilitators on how to provide high quality feedback, as well as the necessity of on-going support and development for the learning facilitators during the assessment process.

This is supported by the feedback from one of the implementation team members who noted that:

"Learning Facilitators should be trained in "how to facilitate online discussion" and the netiquette of online tutorials – most of them indicated this year that they know, but when they had to do it, they didn't know how to facilitate discussion in an online environment."

and that

"The continuous development of learning facilitators should be considered to make sure they also gain and improve their skills and learn new knowledge."

In Evaluation 1, there seemed to be some level of negativity associated with the feedback provided by the facilitators where some students indicated they never received feedback on their assessments from their learning facilitators. These comments were somewhat confusing to the evaluator given her regular contact with the learning facilitators specifically with regards to feedback. At the end of week 5, during a learning facilitator meeting, it emerged that some of the learning facilitators have been posting feedback on BB in fields that are not visible to the students. Thus, students are not wrong to say they did not receive feedback, but this is not necessarily due to the failure of the learning facilitator to provide the feedback. This type of technical "glitch" highlights the importance of comprehensive, hands-on training in BB for learning facilitators (see also discussion on BB later in this report).

In evaluation 2, there were no such similar incidents reported, and it thus appears as if the initial "growing pains" and hiccups of using BB on the part of both the students and learning facilitators were ironed out in the second half of the pilot. The lessons learned in the pilot relating to the online facilitation process and how to effectively manage the BB environment for assessment will be invaluable in 2012 and great care should be taken by the implementation team to ensure that these are applied from the outset.

Feedback from Learning Facilitators

In order to obtain a more nuanced and comprehensive perspective on the successes and critical challenges of the UFS 101 module, qualitative feedback was obtained from all of the learning facilitators after the completion of the module. A set of structured questions was posed to the facilitators, who were then requested to provide written responses to the evaluator.

The questions posed to the learning facilitators covered the following topics: extent of students' engagement with the learning process; elements of the learning material/process students struggled with; elements of learning material/process students experienced positively; extent of student participation in discussions and activities; their own level of preparation to be a learning facilitator;

challenges encountered as a learning facilitator; logistical problems encountered; and suggestions for 2012.

Much of the feedback provided by the learning facilitators is incorporated into the most relevant section of this report to facilitate a better understanding of each area that has been examined. Learning facilitator levels of preparation, challenges experienced and other general suggestions/comments will be discussed in this section.

Preparation to be a learning facilitator

Overall, the learning facilitators felt that they were somewhat prepared to facilitate the first year students and none of the facilitators felt that they were entirely unprepared. This is not unexpected given that all facilitators had received the NATP and Academic Advising training prior to the commencement of the module, and the vast majority had at least some other experience in facilitating students. Despite this, a number of the facilitators did indicate that they could have been better prepared for the experience. Some of the learning facilitator comments included:

> *"I thought I was prepared for being a learning facilitator, but soon I had to face the reality that I was a bit off from being prepared."*

> *"I do, however, feel that more should have been done to really make sure that the facilitators themselves are well prepared for the work that was before them because at times it was really overwhelming. The new facilitators that are to join this project next year should be well capacitated to deal with the work of the project and the intensity thereof."*

> *"At first I under estimated the level of understanding I needed to be an effective facilitator.....In future, all selected facilitators should at least have 1 year experience in tutoring/mentoring students as this lays a foundation of better understanding and knowing what lies ahead."*

One of the learning facilitators who were involved in the development of the module content felt more confident in her ability to facilitate the learning sessions, she commented:

> *"I was exposed to the content of the module during its developing phases so when we were trained I already had a good background of what the module contained and therefore knew how to incorporate the training we received into facilitating the module. I would suggest that learning facilitators be given the content or readings for the module before training with strict instructions to prepare – maybe give them an exercise to do or have them participate in a discussion board on what they expect UFS101 is about."*

The feedback from the learning facilitators and the feedback from the implementation team both confirm the importance of providing high quality training for all learning facilitators. However, given that facilitation is a skill that is acquired over time, and that there are many unique aspects to UFS 101 that

learning facilitators may not have been exposed to in previous modules they have facilitated, one of the implementation team members suggested that *"continuous development of learning facilitators should be considered to make sure they also gain and improve their skills and learn new knowledge."*

There are multiple advantages to investing in the development of the learning facilitators, including the continued improvement of the quality of facilitation within the module, the development of a corps of learning facilitators who can be effective in tutoring other modules on-campus, and the possibility of capacitating future academics.

Problems with time management

By far the biggest challenge experienced by the learning facilitators was managing their own time and juggling demanding schedules along with UFS 101 responsibilities. Almost all of the facilitators who submitted their feedback commented on the heavy time demands. It should also be pointed out that these facilitators were each responsible for only 1 group which approximately 10 – 15 actively participating students in. In order to be able to facilitate this group in the current module structure the learning facilitators report spending 7-9 hours per week (depending on the nature of the assessment task and the nature of the learning experience they needed to attend). Learning facilitators in 2012 will each have 2 groups of approximately 25 students in, which will mean a marked increase in the amount of assessment they will be responsible for. It is estimated that learning facilitators may need to spend about 10-15 hours per week on UFS 101 related activities (attending classes, meetings and learning experiences, assessing tasks, responding to communication and leading tutorial sessions) and this expectation will need to be clearly communicated to learning facilitators prior to their appointment.

The following quotes from the learning facilitators highlight their difficulties in managing their own time:

> *"The most major problem encountered was clashes, with the times of the students and with my personal timetable. The learning facilitators had to give up their available times before the semester started and this in some cases clashed with tests and projects which is only readily available at the beginning of the semester."*

> *"Time was one of the most important factors in UFS101 in my experience. I found that preparing for the lectures, assessments, making the work and giving feedback had taken so much time. Being fulltime student and having a fulltime job with UFS101 on the other side was just not working for me."*

> *"Being a learning facilitator for UFS101 I found it a bit difficult to stay afloat towards the end. It is said that smooth seas never make good sailors, there have been times when the load was becoming a bit too hectic and I was losing track of dates and times because of everything that I had to juggle at once, and amidst all this my academics were also taking a toll on me and I felt like*

my life just revolved around UFS101 because I had to sacrifice my weekends for blackboard interaction, marking forums as well as doing my preparation for the following week's session"

"Although UFS101 in 2011 ran over a period of 3 months, time management became one of the greatest challenges for me. "

The UFS 101 team for 2012 must consider carefully how they will deal with this matter in order to find a critical balance between not overloading facilitators with too much work (resulting in a decrease in the overall quality of their work) and not employing too many facilitators (resulting in an unmanageable administrative load for the team to manage and monitor the facilitators).

Problems experienced

For the most part, the learning facilitators were committed, enthusiastic and a critical factor in the overall success of the module. However, there were some minor problems encountered along the way where a very small percentage of learning facilitators did not meet their responsibilities and further disciplinary steps were necessary. Even among the most dedicated of the facilitators it was necessary at times to send numerous reminders to submit assessment marks or to submit documentation. It is recommended that a comprehensive code of conduct/job description is drawn up for 2012 which all learning facilitators will be required to sign (prior to the commencement of their duties) detailing all of their roles and responsibilities and that clearly articulates what is expected of them. This will be of particular importance in 2012 when the number of facilitators that must be managed increases from 10 to approximately 70.

The implementation team member responsible for managing the learning facilitators in the pilot study made a number of recommendations in terms of managing the learning facilitators in 2012, including:

- There should be one permanent staff member who is designated to manage the learning facilitators. It will be important for the facilitators to know who they are reporting to and for clear expectations to be set for facilitators in terms of what their responsibilities within the module are:

  "One permanent person should manage them, because some of them were not professional and I always had to remind them of things and it causes much more admin to manage them. Due to the fact that most of them were also employed in our division, they didn't see the need of responding in due time on emails and other communication."

- A more structured communication and monitoring system (e.g. monitoring of attendance at classes, learning activities etc.) for learning facilitator activities should be put in place in order to

minimise the possibility of and management of incidents (e.g. learning facilitators who fail to do what is required of them).

> *"Monitoring of learning facilitators should be done and the coordinator of them should have a set communication structure with them, e.g only respond via email in order for them to keep record of things so that people don't blame each other and that one also have proof if the work is not done properly or on time."*

General Observations

From their feedback it was clear that by being a facilitator these students had not only contributed to the learning of others, but had also learnt valuable lessons about themselves in this process. One facilitator reflected:

> *"For me the module and facilitation process have taught me that courage and the process of learning do not always roar, sometimes they are the silent voice at the end of it all that simply say ". will not stop learning and trying, tomorrow awaits for me..."*

Overall the facilitators were positive about the module and the first-years' experience within the module. They commented as follows:

> *"The students in my group mentioned that they really enjoyed the experience in general. They found the sessions with the lecturers very interesting and informative. Many students experienced some of the topics for the first time, and seemed to show a lot of interest in those topics.. Overall, I think that the entire module was experienced positively, in terms of the information that students received."*

> *"Overall, the project is phenomenal, and an honour to be part of."*

Effectiveness and quality of learning materials and platform for learning

Module guide

Students in the UFS 101 module each received a module guide which outlined for them precisely what was required within each lecture and within each unit. The module guide included logistical information; detailed requirements for each of the assessment; the reading materials for each unit (except where web documents were applicable); glossaries for each unit and a list of additional resources.

Quality: User friendliness and clarity

By far the majority of the students indicated that the module guide was user friendly (88% in Evaluation 1 and 83% in Evaluation 2), and that they could find all the relevant information they needed (83% in Evaluation 1 and 76% in Evaluation 2).

This was confirmed in the open-ended question related to the module guide where 12 students made positive comments regarding the guide in Evaluation 1 and 19 made positive comments in Evaluation 2. Examples of student remarks about the module guide are given below:

> *"The module really saved me sometimes! Whenever I was unsure I just had to turn to the module guide! It is really organised"*

> *"I have never come across a module guide so organised as the UFS 101 guide. It was extremely helpful."*

> *"The module guide is excellent. I spent many enjoyable hours reading the additional resources. Please provide a list of recommended reading for each unit so we can discover more on our own"*

Although the overwhelming majority of the feedback on the module guide was positive, some students did feel there was room for improvement. For example, more than one student remarked that the *"dates should be set out more clearly"* and another remarked that the guide should *"simplify instructions"*.

Glossary

In Evaluation 1, only about a quarter of students made use of the glossary provided in the module guide for every unit, around half used the glossary only for some of the units, the remaining quarter never used the glossary at all. However, in Evaluation 2 as many as 46% of students indicated that they used the glossary for all of the units and only 15% never used the glossary at all. It is likely that the nature of the materials covered in the last 3 units (including astrophysics and nanotechnology) were so far removed from the general knowledge of the students that they were forced to make more frequent use

of the glossaries. Alternatively, perhaps students became more familiar with the module guide over time and then realised the usefulness of this tool. Either way, it remains encouraging to see an increase in the use of the glossaries.

The students who made use of this resource in the module guide seemed to find them valuable. The following student comments were provided to the open-ended question:

"Even with issues that we are not familiar with I could easily understand because of the glossary"

"The glossary helped a lot especially when it came to the law terms."

An observation by the evaluator is that the glossary is at present not linked directly to the terminology in the module text. It would increase the usefulness of this tool even further if words that are included in the glossary are flagged in the text so that students can refer more readily during their preparation.

Use of additional resources

A total of 87% (Evaluation 1) and 82% (Evaluation 2) of students have accessed the additional resources listed in the module guide for at least one of the units.

"I really appreciate the extra information we were given in the module guide. It really helped me get a better background of the topics we discussed in class."

Based on the observation of the evaluator and comments provided by two students in the evaluation, it is recommended that the additional materials be placed immediately after the relevant unit in the module guide and not right at the back.

Blackboard

Student perspective

The overwhelming majority (93%) of the students have used BB prior to using it in the context of UFS 101, and approximately three-quarters of the students never experienced problems logging on due to internet access issues during UFS 101. Overall, in both evaluations, most students (77% in Evaluation 1 and 85% in Evaluation 2) indicated that the instructions posted on BB were clear.

However, despite their access and familiarity with the interface, as many as 70% of students indicated in Evaluation 1 that they had trouble finding the relevant tasks and/or information on BB (either sometimes or often), and at times had trouble submitting assignments on BB (8 students in total wrote about this in their qualitative feedback). More than 10% of the queries posted on the UFS 101 Facebook page and the problem-related emails sent to the UFS 101 team, were about problems with BB.

One student remarked in Evaluation 1:

"Sometimes as first year students,we do not have much experience on how to submit things via blackboard. Where they show us how to submit them,there is no clear explanation. I also had a difficulty in submitting my assignment for unit 1"

Another commented:

"my experience on blackboard was bad,i submit my first draft essay on unit 1,but the Learning facilitator couldnt find it...so i suggest things should be made more clear where should we submit our stuff and they should show us how to reply in a discussion board,because most of us created threads.

It does however appear that there was some improvement in this regard between Evaluation 1 and 2 – as only 36% of students in Evaluation 2 indicated that they sometimes/often had problems finding relevant tasks on BB. It is likely that as the module progressed students became more familiar with how to use BB and where to find relevant information.

Despite the overall improvement, there remained a number of hiccups that were not completely ironed out as ten students made comments about struggling to submit assessments in Evaluation 2. One student made the following comment:

"I had a problem submitting Unit 3 Assessment 2. I uploaded it successfully but it did not appear on the discussion board. Presently, I have got zero out of twenty for that assessment which is most distressing"

However, it is likely that the situation is not as simple as students struggling with the online learning management system. Feedback provided by the learning facilitators during meetings brought to light the fact that many students attempted to submit their assignments after the closing time provided for the assignments and this is one of the main reasons why they are experiencing difficulty with finding the relevant assignments on BB, as it is no longer active.

Furthermore, it has been flagged that the time and day for submission of assignments (Monday morning by 9h00) may be contributing to the problems experienced with BB. Due to the fact that BB access off-campus is not completely stable, some students were not always able to submit their assignments over weekends from remote locations to meet the Monday 9h00 deadline. The result was that many students either did not submit at all; or that there was an increase in the administrative load for the implementation team and learning facilitators who had to attend to queries and handle assignments sent via email. This has caused quite a bit of frustration in the context of the pilot (but was well managed and contained). However in 2012 when the module is scaled up to 3500 students, this can lead

to unnecessary frustration for the UFS 101 staff, the learning facilitators, as well as the students. The recommendation was made in the interim report to move the submission day to a Tuesday as this will give the UFS 101 staff adequate time to sort out any legitimate technical problems, and will allow for students to have on-campus internet access in order to submit successfully. This recommendation has been accepted by the UFS 101 implementation team and the module will be planned accordingly for 2012.

Linked directly to the day of submission is the time of day by which students must submit (currently 9h00). It is recommended that this be moved later to 11am or even 12 noon, so that students who are experiencing problems or have questions to ask their learning facilitators, can attend to these matters in the morning prior to submission and not miss the deadline. The following recommendation was given by a student in the formal evaluation:

> *"….move dealines from the morning and give us a deadline for the afternoon session, so that if someone had trouble with a task they can still ask for help in the morning session and then submit the task in the afternoon"*

Learning facilitator perspective

From the discussion above, it already began to emerge that the learning facilitators themselves were not always certain how to navigate and use the BB environment most effectively.

For the pilot study, the learning facilitators were shown briefly how to navigate BB and where to locate all the necessary information, but no formal training was given in this regard. The lack of experience and knowledge of BB on the part of the learning facilitators contributed to some degree to the student frustrations experienced with grading – but it also contributed significantly to their own frustrations as they struggled to navigate and use the system. The need for a more formal BB training session for the LF, that has a strong emphasis on practising how to use the system, emerged in the qualitative feedback provided by the LF's:

> *"Blackboard was a big challenge, not only for me but also for the students"*

> *"I think the training for LF's should include things such as Blackboard"*

In light of the feedback given by both the students and the learning facilitators, it is recommended that a hands-on formal training session on BB be presented to students prior to the start of the module, as well as to learning facilitators as part of the learning facilitator training programme.

Effectiveness and efficiency of logistical processes

Communication – Twitter, FB and Cellphone (33-34)

In order to communicate with students in the module, a number of different communication channels were used by the pilot implementation team, including: Twitter, Facebook and cellphone.

In the final online evaluation, students were asked to rate the usefulness of UFS 101 communication via each of these channels. Figure 8 below indicates the student feedback in this regard.
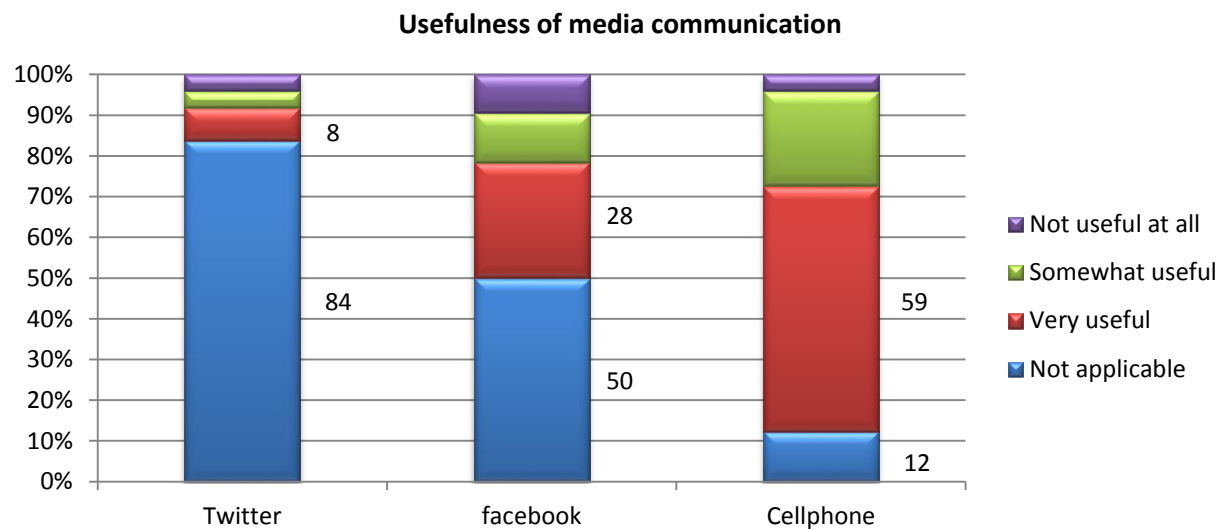
Usefulness of media communication

Figure 8: Usefulness of media for communication in UFS 101(Percentage of students)

From Figure 8 it is concluded that the majority of students did not find the Tweets of any use, given that they were not following UFS101 on Twitter. In fact there were only 12 students who were following UFS 101 on Twitter.

The form of communication the students found to be most useful was SMS via cellphone (60%), and approximately a third of students found the facebook posts to be very useful. Students also made the following comments:

> "The messages helped me to plan my days accordingly and make time to attend the scheduled classes, tutorials and activities."

> "A reminder really helped when your week just get packed with tons of things to do! The sms's really helped!"

> "I really appreciated the communication via cellphone and Facebook."

> "Im not a fan of social networks so it was really irrelevant to me"

The mixed responses of students about which form of communication is most effective, suggests that different media work effectively for different students and that important information about activities, classes and assessments continue to be communicated through multiple channels (possibly with the exception of Twitter – although a new cohort of students might find this form of communication more useful).

One possible reason why students do not find these communication channels effective may be that they are not familiar with how they work. One student commented:

> *I do not have twitter and facebook and I do not know how to use it. Perhaps the UFS 101 team can take those aside that are disadvantaged in this area and give them a quick introduction of how to use twitter and facebook- in doing so they will teach them a skill they can use for as long as twitter and facebook are around.*

Whilst this falls outside of the domain of the content and specific module outcomes of UFS 101, given that the module aims to promote innovative and blended learning methods, perhaps it could be considered to include a short tutorial on how to use Facebook and Twitter in the UFS 101 orientation, or to post short videos for students on BB on how to do so.

Logistical processes

Despite the tremendous logistical load, the implementation team has done an exceptional job of ensuring this multifaceted programme runs smoothly with very few serious problems. No students made comments about logistical problems in the final online evaluation.

In fact one student in Evaluation 1 even remarked:

> *"Every activity was impressively well planned. Thank you very much for all the opportunities thus far. In every activity I learned something new and that improved my way of thinking critically about some aspects."*

Along similar lines, very few logistical problems were encountered by the learning facilitators, and those which were reported, focussed predominantly on BB-related issues. There were also no serious logistical problems reported by any of the lecturers, in fact one lecturer commented during an interview that *"it was unbelieveable, everything worked 100%"*

The sheer scale of the module in 2012 will mean that logistical processes must receive a great deal of attention, and it is strongly recommended that all newly appointed personnel members in the project liaise closely with the pilot implementation team in order to ensure that the module will roll-out as smoothly as possible. In fact, after the experience of being a member of the pilot implementation team

and the amount of logistical detail that had to be taken care of on a daily basis, one member recommended that a full-time person be employed to handle all administrative matters within the module for the full rollout in 2012. Furthermore, there should be clear role clarification between the various UFS 101 staff in terms of who will be responsible for dealing with student queries, facilitator queries and logistical queries in order to ensure that all matters are handled timeously and to avoid any major implementation problems.

One of the key logistical matters that will need careful attention and detailed planning is the conceptualisation and implementation of a comprehensive monitoring system for the module.

In the context of the pilot it was found that a data obtained from various sources (emails for excuses, biometric scanners, posts on Facebook, viewership on BB) was at times difficult and time consuming to reconcile it is recommended that attendance and assessment related data be updated on a weekly basis.

Given that successful completion of the module is reliant on the accurate and consistent monitoring of class and learning activity attendance, as well as assignment submission it will be imperative to keep an updated record for all students on a weekly basis in order to decrease the number of queries.

Furthermore, there was a strong focus in the pilot on monitoring and evaluation research, and in order to understand the value of the project in the context of the first-year of study it is recommended that this type of research is continued during 2012.

Student success in UFS 101

Attendance

Class attendance was tracked on a weekly basis within the pilot study. This was important in order to understand how student behaviour within the module changed/remained constant over time, and also to determine which of the students would qualify for the certificate of completion and letter of reference from Prof Jansen.

Figure 9 below shows the steady but consistent decline in student participation in the module from Lecture 1 until the end of the module.
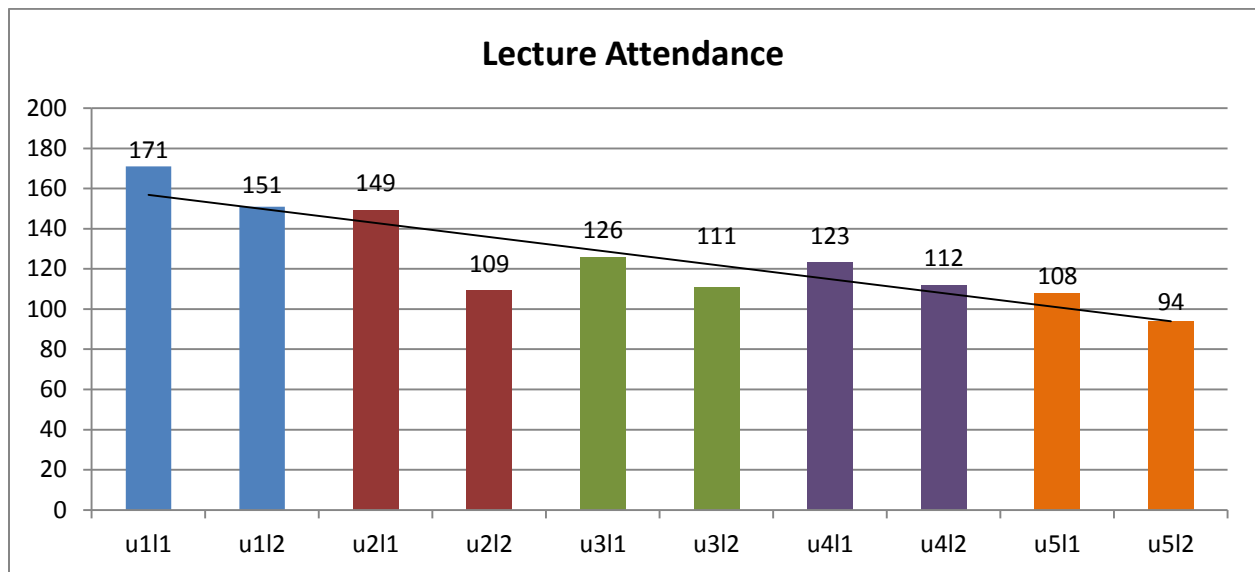

Figure 9: Number of students in attendance at each lecture (Unit 1 to 5)

Some of this decline was due to withdrawal from the module. A total of 27 students formally requested to withdraw from UFS 101. An examination of the profiles of the students who withdrew showed that it was not students with low AP scores who were not able to cope with the additional workload, in fact the mean AP score for this subset of students was approximately 36 – suggesting that even stronger students have challenges with handling additional credits on top of the current modules.

With each of the units, students were required to attend various learning experience activities or tutorials (as outlined in the Overview section of this report).

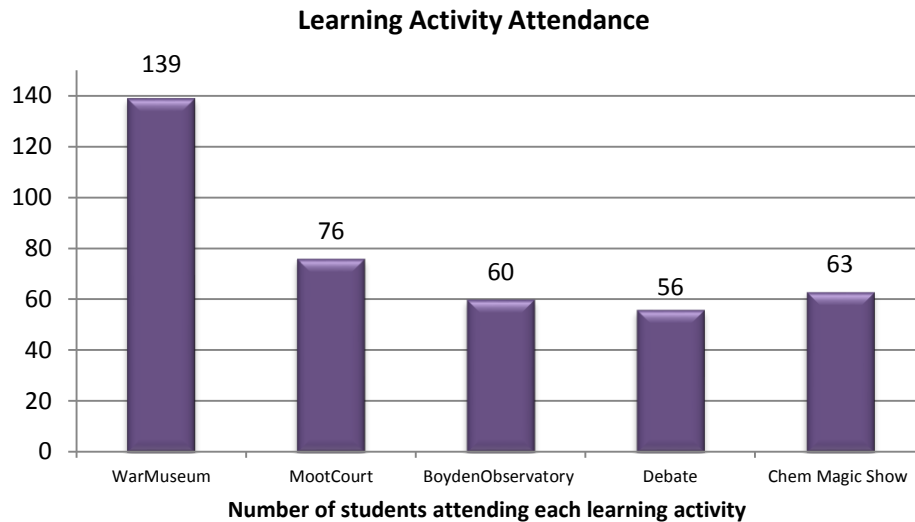Figure 10 below indicates the number of activities students attended.

Learning Activity Attendance

Figure 10: Number of students attending UFS 101 activities

As was seen with the attendance of lectures, there was a decline in student attendance over time. The sharpest drop was from Unit 1 to Unit 2 where almost 50% fewer students attended the second learning experience. A significant contributor to this was probably the fact that the moot court was only presented once in the afternoon – whilst most students were only able to attend the evening classes. There was a slight decrease from Unit 2 to Unit 3, but thereafter the low levels remained relatively constant from Unit 3 to 5.

The consistent drop in attendance from week to week confirms the notion that "Students do not do optional". In other words, in order to make sure students attend lectures and activities, it must be compulsory for them to attend, and attendance should be linked to grades. This is especially important in a module like UFS 101 where the curriculum is designed in such a manner that learning takes place to a large extent within the classroom and tutorial context (as opposed to exclusively out of a textbook). The model for implementation in 2012 makes attendance compulsory and links attendance to grades, and thus it is expected that there will be less decline in attendance over time.

However, if grades are going to be associated with class and activity attendance it may not be realistic to expect 100% attendance from all students. A cut off value of, for example, 70% should rather be considered, i.e. students must have attended at least 10 out of 14 lectures, have attended at least 5 out of 7 learning experiences and have completed all assignments (with an average of at least 50%) in order to pass the module. This recommendation is in line with the model for implementation in 2012.

Assessment tasks

Each unit in the UFS 101 module has two assessment activities associated with it that students are required to participate in.

This assessment-dense model forces students to remain engaged in the learning material and process, and thereby enhances their learning; however, as will be evidenced in the discussion below, this type of model poses a number of challenges in its implementation. Completing each assessment task and obtaining an average mark of at least 50% is one of the requirements for successful completion of UFS 101 in 2012. Given the critical role that assessment will play in the module it is recommended that the UFS 101 staff try to iron out as many of the concerns related to this as possible in order to manage the risks associated with it.

Student performance in UFS 101 assessment tasks

Student participation and performance in each of the assessment tasks is presented in Table 2 below:

	Number submitted	Maximum possible	Mean	Mean %	Highest Score	Lowest score
Unit 1 Assessment 1	125	20	14.1	70.7	20.0	2.0
Unit 1 Assessment 2	104	20	15.5	77.4	19.0	10.0
Unit 2 Assessment 1	112	40	28.3	70.7	39.0	10.0
Unit2 Assessment 2	99	40	27.5	68.7	38.0	4.0
Unit 3 Assessment 1	104	30	18	59.3	30	4
Unit 3 Assessment 2	105	20	15.1	75.4	19.0	5.0
Unit 4 Assessment 1	95	20	14.1	70.7	18.0	7.0
Unit 4 Assessment 2	95	20	15.4	76.8	19.0	10.0
Unit 5 Assessment 1	93	20	15.6	77.8	19.0	8.0
Unit 5 Assessment 2	76	20	15.3	76.7	20.0	1.0

Table 2: Student participation and performance

From this table, a number of observations related to assessments are made:

- In line with the declining class attendance, submission of assessment tasks also continued to decline – from 125 for Unit 1, Assessment 1 to 76 assessments in Unit 5, Assessment 2.
- In all of the assessments there were students who did very well (achieving close to or at the maximum) and students who did very poorly (with scores as low as 1 out of 20).

- However, the mean scores for the assessments were all above or close to 70% (with the exception of Unit 3, Assessment 1), indicating that for the most part those students who did submit their assignments were able to cope with (and even excel in) them.

Unit 3, Assessment 1 was the multiple choice questions for the astrophysics unit and had a strong focus on content. Students were directed to complete 2 readings and watch a CD before completing the multiple choice questions. Given student feedback on their level of understanding of the content of this unit and its level of difficulty, it is possible that those students did not understand the readings and that this contributed to their lower performance on this assessment task. Given that only one assessment task will be included per unit in 2012, it is recommended that the second assessment task (related to the SKA project) be retained for this unit because it is more closely aligned with the overall module outcomes of helping students see how different disciplines relate to real world challenges.

Student feedback on assessment tasks

In the two online evaluations, students were asked to indicate whether the assessment tasks were easy to understand, whether the tasks required them to apply the knowledge they obtained in the module and whether they continued to learn by completing the assessment tasks.

In Evaluation 1, around two-thirds of students indicated that the assessment task were clear and easy to understand for all of the units, and a further 33% said assessment tasks were clear for at least some of the units. In Evaluation 2, the number of students who found the assessment tasks clear and easy to understand had increased to just more than 80%. A possible reason for this is that students had become more familiar with BB, the module guide and the expectations within UFS 101 and thus found the instructions clearer and easier to understand. In fact, one learning facilitator commented that it was only after they had completed more than 1 discussion forum that students' contributions became more meaningful.

Some additional comments from the learning facilitators confirm students' initial struggles with finding and understanding the assessment tasks in BB:

"in unit 1 students struggled with BB…"

"a number of students struggled with the online discussion board that served as their first assessment."

"I found some of them having created a lot of threads because many were not familiar with blackboard."

In order to overcome this, additional ways of supporting students within BB during the first 2 modules could be considered and a more comprehensive BB training during the launch and orientation are essential.

Students were asked to indicate whether their assessment tasks required them to apply the knowledge they had obtained in the module and whether the assessment tasks contributed to their continued learning. Figure 11 below indicates student responses in this regard in both evaluations. The vast majority of students (more than 70% in all cases) indicated that the assessment tasks required them to apply their knowledge and contributed to continued learning.
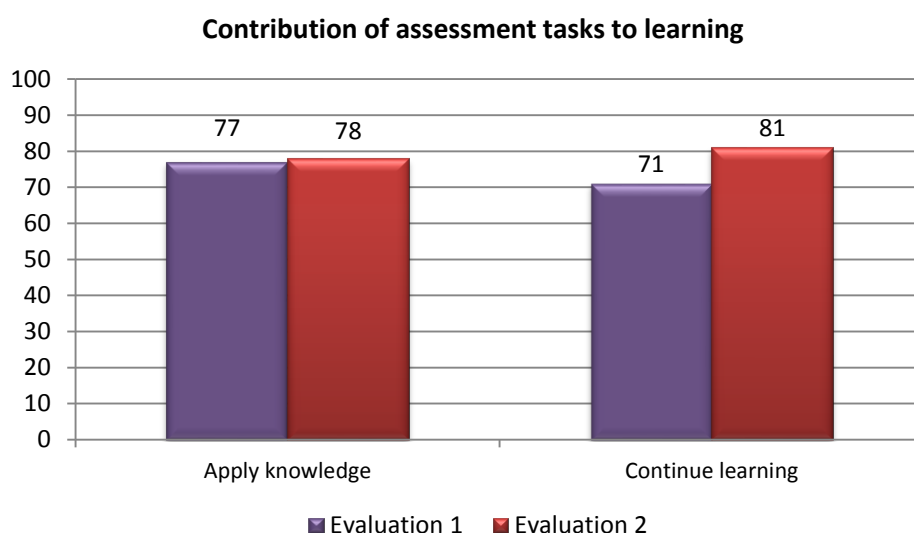
Contribution of assessment tasks to learning

Figure 11: Contribution of assessment tasks to learning

From the comments students provided in the two evaluations it is evident that many students made a clear link between the unit content and the assessments, and that the assessment tasks were sufficiently challenging. Examples of student comments include:

> *"The assessment tasks forced me to use the reading materials at the back of the module guide and by reading them, I learnt a lot."*
>
> *"they are not very easy, but worth every minute I spend on them"*
>
> *"I thoroughly enjoyed the assessment tasks. Best part of the course if you ask me!"*
>
> *"I truly enjoyed writing my assignments. They were thought provoking and taught me a great deal. Getting the opportunity to express and respond to opinions was probably the best part of UFS 101 for me"*

Although students in general experienced the assessment tasks in a positive manner, some students had negative experiences, as evidenced in the following comment:

> "The assessment tasks were really demoralising and tiring, because it felt like I was taking another English module. The graded focused more on grammar, than on the opinions of an individual, which is not fair as some of us are not good at creative writing, which puts us at a disadvantage."

Concerns regarding assessments

Despite the overall positive trends evidenced above, there are some concerns that should be raised.

The first concern is the number of assessment tasks that had to be completed (and hence graded by learning facilitators). Students in both Evaluation 1 and Evaluation 2 commented on the heavy load of the assessment tasks:

> "(the assessments were) very inconvenient for some of us.it became a burden because of all the other work i had to study for."

> "They were a bit overwelming at times (time wise). Although I completed all the assessments, I struggled to find the time to do so."

> "The assessment tasks were troublesome sometimes because some of us could not find the time to do them properly especially during test week which is very compact for me."

Learning facilitators and implementation team members raised similar concerns in their feedback:

> "Students mostly struggled with the amount of reading that needed to be done, as well as the assessments. Students feel that the work was too demanding for a non credit-bearing module. Mostly I think that students struggled with the assessments, as it took a lot of their time."

The second concern is the relatively short time frame in which the assessment tasks had to be completed, as well as the date and time for submissions. Students were required to attend the lecture on a Monday and then complete the assignment by the following Monday at 09h00 (in addition to attending the learning experience and preparing the materials for the following lecture). There were a number of logistical and administrative challenges associated with this (including technical problems with off-campus BB access, lack of internet access for students over weekends, insufficient time for the implementation team to iron out technical problems before 09h00 on a Monday etc.), resulting in an increased administrative load for the implementation team, as well as a number of late submissions from students.

The timing for submissions was particularly problematic for the discussion forums. Students were required to make at least one unique post of their own, and in addition they had to comment on the posts of at least two other students by the time the discussion forum closed (Monday mornings at 09h00). Most students delayed making their initial posts until the very last minute (generally only submitting their first post over the weekend prior to the closing date, often on a Sunday). This left very little time for other students to have enough time to comment, and also extremely little time for learning facilitators to provide feedback to students on their posts. As a result, the discussion forums did not have the chance to "emerge" optimally.

Numerous complaints about the day/time of submission of discussion forum posts were raised by both students and learning facilitators. For example:

> "Maybe there could be a preliminary date on which all posts should be posted so as to give us something to comment on because most students, myself included, sometimes did the discussion board the night before the deadline." (student quote)

> "The submission deadline for the students should be reviewed to prevent the last minute Sunday evening rush which is a problem for facilitators and the time should also be later in the day rather that early as students have classes to attend to in the morning and do not find time in the morning to submit."

> "The challenges I experienced were mostly to get the students to participate in the discussion forums early, in order for me to facilitate the conversation." (learning facilitator quote)

> "The most inconvenient thing to facilitate was definitely the discussion forums – internet access is a problem over weekends and you mostly feel like you want to focus on your own studies during that time rather than facilitate other students; last-minute attempts. Also, the number of assessments which needed to marked regularly took its toll." (learning facilitator quote).

Similar feedback was obtained in the interim evaluation and it has since been decided that all assessment tasks will no longer be due on Monday mornings (see also later discussion on BB). However, this will not eliminate the problem of students submitting their first posts at the last minute. In order to overcome this, it is suggested that 2 deadlines be set for discussion forums – the first date for students to submit an initial post (possibly a Friday afternoon), and the second date for students to make comments (Tuesday late morning as will be the case for other assessment tasks).

A third matter that was raised in connection to assessment tasks was the overemphasis on discussion forums. Some learning facilitators and students suggested a greater diversity in assessment tasks, with less emphasis on discussion forums.

> *"I would just suggest that the number of assessments be reconsidered and that students be given more opportunities in class to actively participate in the lecture – more than just Q&A. Maybe have them do a group project where they have to build something that illustrates the question 'How small is small?' for example."*

Another suggestion from one of the learning facilitators is to substitute one/more of the discussion forum tasks with an interactive live chat session with students (see also suggestion to diversify assessment tasks above):

> *"It could be beneficial if the Blackboard (Bb) discussions were not delayed discussions, but rather managed like a live, interactive 'chat room type' discussion. This could be managed so student groups could chat online during a specific time allocated in the module. Facilitators may then also participate and stimulate the discussions directly and actively."*

During Evaluation 1 some students also suggested a greater diversity in assessment tasks to include some tasks that are less writing-intensive. A good suggestion provided by one of the students in the feedback was to have students prepare a presentation/speech to develop their speaking and verbal skills. They could present these in the context of the tutorial groups, and be graded for argumentation skills, as well as speaking ability.

An observation by the evaluator is that some of the assessment tasks that required students to participate in discussion forums were not well suited to this type of activity. For example, Unit 2, Assessment 2 asked students to do the following (extract of part of the question):

> *1 a) Suppose a man has planted a bomb in New York City, and it will explode in 24 hours unless the police are able to find it. Should it be legal for the police to use torture to extract information from the suspected bomber? What is your perspective on this? What will the utilitarian perspective be? When completed, move on to the next part of the question.*

This activity requires students to state their perspective and the utilitarian perspective, after which a series of other questions (of a similar nature, but differing in detail and complexity) were given. One way in which this activity could be revised would be to ask students to state their perspective and the utilitarian perspective and contrast the two – pointing out areas of similarity and difference. Students could then make powerpoint presentations of their responses and share these within the context of a face-to-face tutorial where other members can give feedback.

The fourth concern regarding the assessments is that the assessment-dense approach to the module not only has time management implications for students, but also for the learning facilitators, who gave the following comments about their own workload and the workload of the students in their groups:

"There were a lot of instances also where one had to facilitate discussion forums over weekends as it was due for students on Monday, the fact that majority of students participated frequently on Sunday afternoon through the evening became a challenge also as now weekends were also being consumed with the facilitation task and between Sunday and Tuesday there was class attendance as well as marking of assessments."

"…less(ening) the marking load of the Tutors by perhaps having more face to face tutorials in which the students are given marks for contributions."

Time management

In both of the formal online module evaluations, students were asked to indicate whether there was enough time in their current academic schedules to attend UFS 101 lectures and tutorials, and whether there was enough time to complete weekly assessments. They were also presented with an open-ended question that asked them to provide feedback on matters related to scheduling and time management.

This question is of particular interest because UFS 101 will be compulsory for all mainstream first-year students during 2012 which will imply that they must add the additional 16-credits for UFS 101 to their current academic load. Whilst the value of the UFS 101 module is clearly evident based on the feedback of multiple role-players, it should be kept in mind that many students are already academically overloaded (even if they only enrol for the required degree programme modules), a large percentage of students are not adequately prepared for the demands of higher education -and as a result are required to take additional language and/or maths development modules, the credits of which do not count towards degree attainment- and that because the transition from high school into higher education places significant demands on students (academically, socially and psychologically) it is an inherently high risk period for students.

Figure 12 below shows student responses to the two time-related questions for Evaluation 1 and 2.
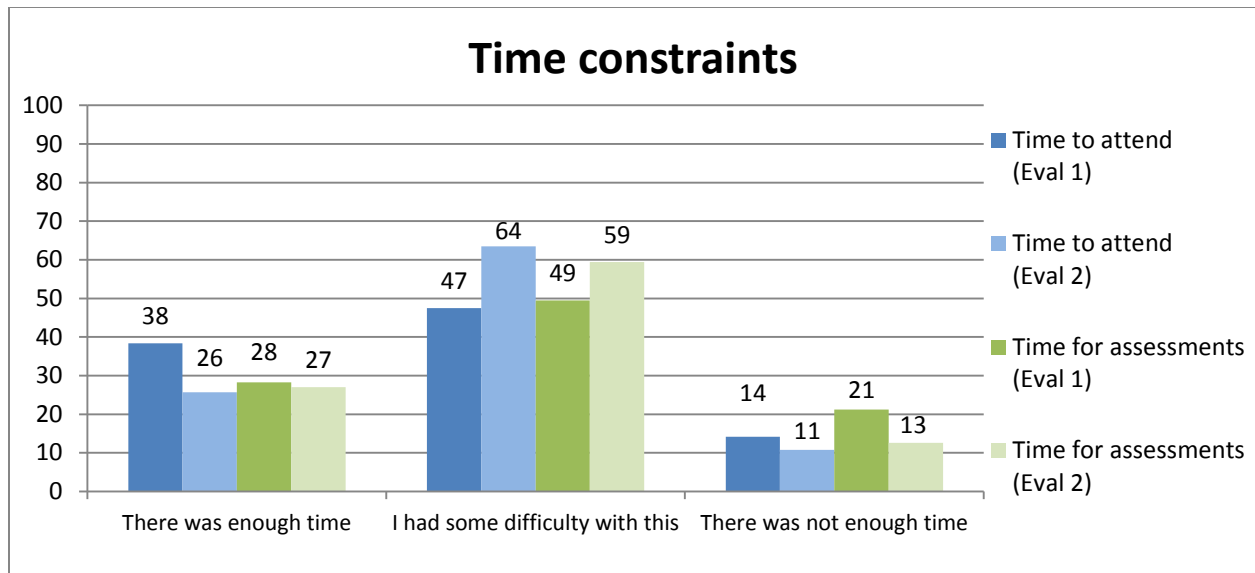
Figure 12: Time management for UFS 101 attendance and assessment (expressed as percentage)

The figure above suggests that most students had some difficulty with fitting the UFS 101 lectures and assessments into their academic schedules, and that the percentage of students for whom this was a problem increased from Evaluation 1 to Evaluation 2. One possible explanation for this is that as academic pressures (tests, assignments etc.) increased as the semester progressed, students had more difficulty meeting all of their responsibilities in the UFS 101 module. Although there were slight decreases in the number of students who indicated that they did not have enough time for classes or assessments, this must be interpreted in light of the gradual withdrawal and non-participation in class and assessment activities towards the end of the module. It is likely that those students who already did not have enough time at Evaluation 1, withdrew from the module completely by the time Evaluation 2 was to be completed. In fact, among the students who stated their reason for withdrawing, the only reason cited was timetabling constraints and inability to handle the additional academic workload associated with the module.

During Evaluation 1 it appeared that the assessment load was more challenging for students to deal with than the additional lecture load. Around 20% of student comments in Evaluation 1 to the open-ended question reflected that the assessments were too time consuming. This sentiment is confirmed in the following student comment from the evaluation:

"Assessments required a lot of time and energy, which I did not have at times".

During Evaluation 2, 82% of the comments provided in the open-ended question were related to time pressures/not having enough time for classes and/or assessment tasks. Examples of student quotes from this question are provided below:

> "It had challenged my time and it really becomes a hassle to complete assessment and attend tutorials during heavy test week"

> "I didn't attend all the lectures because it clashed with my classes….I do think the last assignment is a bit cramped in... i would like more time to reflect on what i learned."

> "I could manage attending the lectures but the tutorials or outings often demanded sacrificing class. I found completing the assessments were stressful because I needed to concentrate on my academics as well…..so I could not spend as much time and effort as I would have liked completing the assessments."

> "Although this a wonderful project, it does get overwelming at times. It was difficult to balance UFS101 activities and my other subjects."

Various other concerns also arose from the open-ended question related to time and scheduling during both Evaluation 1 and 2:

- There were a number of students who had clashes for both the morning and the evening time slots, and could thus not attend any of the UFS 101 lectures. This group of students presents a particular challenge for the 2012 roll-out where class attendance will be linked to grades.

- The time at which the morning class was scheduled (12h30) posed a particular challenge to students due to the fact that all other lectures at the UFS start at ten past the hour. One student wrote the following comment in this regard:

> "The lectures were at terrible times and I could not attend any of them. Making lectures from 12:30 to 13:30 was a mistake because it covers two lecture slots making it impossible for some students to attend"

Based on student feedback from Evaluation 1 in this regard, it has been decided that classes for UFS 101 will be aligned with the UFS timetable to decrease the number of clashes.

- Students complained that lectures did not end on the hour (but were often running late), and as a result they were late for other classes. The fact that the lecture venue is situated relatively far from other lecture venues on campus makes it even more important that lectures end on time so that students are not later for their next classes.

One student captured a number of the frustrations related to time in the following comment:

"I really don't see the reason why we have to do this module. It really clashes with our schedule, there are too many written assignments and the fact that they are graded is not helping at all. This module takes up most of my time that I would rather be using to do my major module homework and studying."

Aside from these concerns raised within the specific time related questions, some students also made reference to time management challenges in response to other questions. For example in Evaluation 1, 2 (out of 3) students who never prepared for any lectures indicated that this was because they did not have adequate time to do so. In Evaluation 2 the number of students who indicated that they never prepared for classes doubled and as many as 6 of the 7 students who never prepared indicated that it was due to time constraints. In the qualitative feedback, one student stated the following:

"It did not view it as more important than my other subjects. I rather did homework and preperation in my other subjects than prepare for the UFS101 lectures."

One plausible explanation for the consistent drop in attendance and participation in assessments as the module progressed is that some students made the choice to give their other modules preference over UFS 101 due to the large amounts of time required for preparation, class attendance, activities and assessments (as reflected in this student quote). This is confirmed by the responses to the withdrawal survey – where all of the students who withdrew indicated in one way or another that time was the reason for their withdrawal (this included clashes, heavy assessment load and that UFS 101 interfered with their co-curricular activities). Other students, however, indicated that they continued with UFS 101 activities despite the extra load, but that this meant compromising their other modules:

"Some of the activities had to take preference over my school work why because I knew that if I had to do my school work then I would not have enough time for UFS 101 due to the workload."

From the above discussion, it is evident that time management and scheduling presented a challenge to a number of students in the pilot study, and it poses a number of challenges for the roll-out in 2012 given that all students will be required to do the module in addition to the modules required for their degree programmes. Due to the fact that students will not have the option to withdraw or discontinue submitting assignments, it is anticipated that for some students the choice will be between failing UFS 101 or disengaging from other modules – both of which have implications for the student's future academic career at UFS. It is thus of vital importance that a conclusive decision be taken about how failures in UFS 101 will be handled and what the consequences for students will be.

Students struggled to fit all of the activities associated with UFS 101 during a 7-day period into their schedules. On a weekly basis they would have to: prepare materials (miminum 2 hours), attend class

(minimum 1.5 hours if commute time on campus is accounted for), complete their assessments (minimum of 2 hours) and attend a tutorial or learning experience (anything from 1 to 5 hours). This means that a student would have spent in the region of 6.5 to 10.5 hours per week on UFS 101-related activities (i.e. 16% - 26% of a 40-hour week).

However, even if the above mentioned changes are implemented, it is almost inevitable that some students will not be able to attend classes due to clashes (as well as valid ad hoc personal or study related reasons). Given that class attendance will be linked to grades in 2012, provision will have to be made to accommodate this subset of students in some manner (e.g. by posting video recordings of classes on BB). However, designing an efficient and manageable system of monitoring individual student viewership of these videos and incorporating this information meaningfully into the attendance data obtained from the biometric scanners may present the UFS 101 staff with some challenges if the information management system is not well conceptualised and implemented consistently and accurately from the start of the module – especially given that attendance/viewership must be monitored for approximately 3500 students.

Emerging from Evaluation 1, the greater concern from the perspective of the students in terms of time, relates to the assessments (in terms of their nature, length and the number required). The recommendation to decrease the assessment load made in the Interim UFS 101 evaluation report has been adopted and it was decided to only have one assessment task per unit in 2012. It is anticipated that this will relieve the time pressures on students to a great extent. A further knock-on effect of reducing the number of assessments is that it decreases the assessment load for learning facilitators (who will each be responsible for 2 groups of students in 2012).

Successful completion of UFS 101

Only a very limited number of students managed to successfully complete the module based on the criteria set out for them. When students were invited to participate in the pilot they were told that they would receive a certificate of completion and a letter of reference from Prof Jansen for their participation in the project if they met the following criteria:

- Attend at least 7 out of 10 lectures
- Complete all assessment tasks (10 in total)
- Obtain a minimum of 50% for these assessments

If student attendance and assignment submission data overall is taken into account (with a maximum of 10 lectures and a maximum of 10 assessments) the following trends are noted.

- Only 54 (32%) of students had attended all of the lectures, but 121 (72%) had attended at least 7.
- Only 45 (27%) of students had submitted all of the assignments.
- Only 25 students (15%) had attended all lectures and submitted all assignments, whilst 45 (27%) students had attended at least 7 lectures and submitted all their assessments.

Based on the stated criteria for the pilot, only 42 students qualified to receive the certificate (i.e. a total of 20% of the students who initially enrolled). If learning experiences (excluding tutorials) are included in the calculation then only 22 students (13%) would meet the attendance/assignment submission criteria suggested for the successful completion of the module in 2012.

Taking into consideration the low number of students who met the criteria for successful completion in the pilot, and that the students did not receive credit for participating in the pilot, it was decided to amend the criteria in the spirit of recognizing their hard work and effort throughout the semester. The new criteria for obtaining the certificate and letter was that students must have attended at least 7 classes and have submitted at least 7 assignments (with a minimum average of 50% for the 7 best assignments). After the amended criteria were applied a total of 91 students obtained certificates (i.e. 56% of students who remained enrolled in the module).

Although it must be borne in mind that students were aware of the fact that they would not be obtaining credit for the pilot study (possibly influencing their choice to disengage), the consistent decline in participation and the very low percentage of students who would meet the criteria for successful completion presents a very real risk to the implementation of UFS 101 in 2012.

The trends in attendance and assignment completion, as well as the decline in student interest over time were highlighted in the feedback that was obtained from the learning facilitators. Three of the 10 learning facilitators remarked in their feedback that they constantly had to motivate students to remain involved. One facilitator commented:

> *"Some of the challenges I encountered was that of keeping interest of the students. I spoke to many before sessions and a lot of the students did not understand the goal of UFS101 or why the workload amounted to more than they though initially. "*

Although it is hoped that the mandatory nature of the module in 2012 will help to eliminate some of the student disengagement in the module over time, given that the credits do not count for degree

purposes may result in students not taking the module seriously from the start or may result in similar decline in motivation and participation as pressures in other modules increase. The complexities around student participation and levels of engagement in classes and assessment must be noted as a potential risk factor that may need to be managed strategically in 2012 – including how failures will be dealt with and what requirements for reassessment and re-enrolment will be.

Overall satisfaction

As an indication of their overall satisfaction with the module and their overall impressions, in Evaluation 2 students were asked if they would recommend UFS 101 to other first-year students, and if they would participate in the pilot study again if given the choice. Figure 13 below indicates student responses to both of these questions.
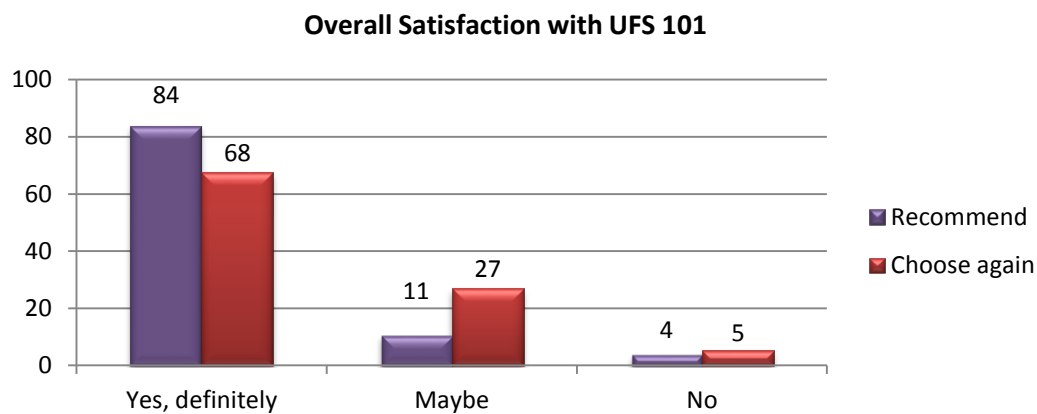
Overall Satisfaction with UFS 101

Figure 13: Overall satisfaction with UFS 101 (Percentage of students)

Very few students would not participate in the module again and would not recommend the module to other students. The overwhelming majority of students would definitely recommend UFS 101 to other first-years, and just more than two-thirds of students would participate in the pilot again if given the choice. Just more than a quarter of students indicated that they would "Maybe" participate again which is more than double the amount who would "Maybe" recommend the module. Although no qualitative responses were gathered for these two questions, it is possible that other factors which have emerged (such as time pressures and heavy assessment loads) played a role in students' responses to these two questions.

General

The rich and positive experience that students had with this module is evident in the comments that emerged in both the online evaluations. Some of the positive student comments are captured below:

> *"Let every first year take part in this course because is really a very good and interesting way to wide up your "information world" and think about situations differently."*

> *"All my friends are jealous that they cannot do it."*

> *"I learned some very valuable things about myself and South Africa and the general opinions of my peers. This course has restored my faith in my peers. Thet impressed me."*

As a final question in Evaluation 2, students were asked if they had any general comments or suggestions they would like to share with the UFS 101 team to be taken into consideration for 2012. Some of the positive student feedback includes:

> *"It is the best module ever"*

> *"I feel very priviledged to have been chosen to participate in the module and it was an eye-opening experienced that taught me valuable skills that I can use for the rest of my life."*

These positive sentiments are echoed by some of the spontaneous feedback provided by students on Facebook, where one student commented:

> *"ufs101 was the best module of my first year"*

As can be expected, not all feedback is positive and a limited number of students provided some negative feedback to this open question. An example of one student comment is provided below:

> *"some topics were very boring and the lecturers really didnt make it any better.for a module with no credits,dont schedule too many activities/assessments - first years will lose interest QUICKLY."*

Very few novel suggestions emerged in this question that had not been covered in previous questions, i.e. timetable clashes, decreasing assessment load and changing times for submission of assignments continued to be the most prominent themes. One student did however suggest creating a link between the new students who will be doing UFS101 in 2012 and the students from the pilot project:

> *"maybe some of us could come to the introduction to tell the new students about what to expect and our experience on the programme. eg. each student takes a group of 5 students and casually talks to them after the introduction. i would gladly partake in this"*

This suggestion could be easily incorporated into the proposed Orientation session, or at the launch of UFS 101 in 2012 and might be worth considering as it will help create excitement around the module for the new students.

One interesting finding that emerged is that aside from the specified module outcomes, students are learning other skills by engaging in the UFS 101 module, such as improved computer skills. Two students made specific comments in this regard:

> *"I am not somebody who understand computers that well, but doing all these activities are helping me to be more computer-friendly."*

Conclusion

Overall, the implementation of the pilot UFS 101 module can be considered successful, and a number of valuable lessons have been learnt that will significantly increase the chances of successful roll-out in 2012.

During the evaluation process a number of core strengths of the UFS 101 core curriculum module have emerged. It is recommended that the implementation team for UFS 101 in 2012 makes every endeavour to maintain the high quality of each of these aspects. The strengths of the module include the high levels of active learning, the implementation of a blended learning approach and the high quality of the learning materials provided to the students. As is the case with any module, the people who are involved in the learning facilitation process have a tremendous influence on the quality of the module, and the extent to which learning takes place. Both the lecturers and the learning facilitators who have been involved in UFS 101 have been role models of good teaching and learning. Their hard work and inputs have paid off, as student feedback in the evaluation shows that they are deeply engaged in the learning process and that progress towards the achievement of the module outcomes is being made.

The evaluation process has also highlighted a number of key areas in need of attention prior to implementation in 2012, and each of these has been discussed in greater detail in this report (and are summarised in the executive summary). In order to ensure the successful implementation of the module in 2012 it is recommended that the newly appointed staff pay close attention to these recommendations and liaise closely with the pilot implementation team.