Reflections on the effectiveness of using concept maps and web pages in undergraduate literature courses at The University of the West Indies, St. Augustine

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The quality of student input in the Literatures in English undergraduate programme at The University of the West Indies, St. Augustine is linked to the quality of the output from the secondary schools, and so at the tertiary level there is the challenge to simultaneously establish continuity, remedy deficiencies and maintain university standards. In order to promote a love and appreciation for the discipline, and to promote both learner autonomy and teamwork inside and outside the classroom, this lecturer has attempted to employ diverse strategies that would enable assessment as learning and assessment for learning. Among these are the concept map and the web page. This paper focuses on the effectiveness of both in relation to course outcomes and expectations. The paper concludes with stated ways in which the lecturer intends to use these two strategies in the future on the basis of the observations from this reflection.

**Key words**: quality, assessment, learner autonomy, teamwork, concept map, web page, teaching, learning

Introduction

From 2008 to 2011, a combined total of 798 undergraduate majors and postgraduate candidates were enrolled in the Literatures in English (LIE) programme on the St. Augustine campus of The University of the West Indies (UWI). Most of the undergraduate students whom academic staff tend to encounter in the LIE classroom are majoring in the interdisciplinary English Language and Literature with Education (ELLE) degree. Other students pursue LIE as a Minor, as part of a Double Major, or as Elective courses. Hence, the trend is that LIE is rarely done as a sole option and is largely done within a selection of cross-/inter-disciplinary programme offerings. This corresponds with what occurs at the Caribbean Advanced Proficiency Examination (CAPE) level in Trinidad's secondary schools. Traditionally, perhaps because of parental influence; the lesser prestige associated with subjects in the arts and the humanities; and expectations of more lucrative job opportunities and salary earnings associated with Science and Business, for example, fewer students select LIE as an option. In some cases, LIE is chosen as a substitute for the desired subject that was denied because of the student’s performance in the Caribbean Secondary Education Certificate (CSEC). At the
UWI, particular Majors lure students away from LIE, such as the very popular Communication Studies which has quite a large cohort of students. There are students who do LIE – whether as a Major, Minor or Elective – who have a lukewarm attitude towards the discipline, and staff have had to grapple with other issues such as plagiarism, mediocrity, poor writing skills and an apathy for reading, to name a few. Descriptors used by Jules (2011), Registrar and Chief Executive Officer of the Caribbean Examination Council (CXC), for the kind of students within the present regional secondary system can be aptly applied to UWI students as well. He observes that “the current population is more varied in its ability profile, has wider socio-economic status differences, and represents a more complex mix of learning styles” (p. 1). What Jules notes with regard to how learning should be conducted in the secondary school is also applicable to the university:

*Make learning fun*, exciting and a journey of discovery and awakening. As much as this involves the incorporation of information and computer technology in education, it is also importantly about low tech initiatives. At the core, it involves a paradigm shift in how we motivate our students and stimulation of their natural curiosity, creativity and critical thinking (p. 3)

In his exploration of how UWI should reconcile quantity with quality, Robotham (2000), a former Pro-Vice Chancellor of the university, addressed concerns about the quality of student output and the systemic and pedagogical challenges faced by academic staff. Robotham compares the situation in Europe and North America where there are many more universities to cater to niche demands in the higher education market to what pertains in developing countries like ours where fewer universities exist, thus resulting in us not having:

…the luxury of filling niches either up- or down-market. We have to be all things to all persons, with the same institution required to excel at undergraduate and graduate education, teaching and research, elite and mass higher education; in a word – quantity and quality. How can this dilemma be resolved? (p. 240)

Although in the years 2000 to 2011 there has been an increase in the number of tertiary level providers in the region, and in Trinidad and Tobago in particular, this is a question that is still pertinent especially in light of the fact that UWI still considers itself the premier tertiary institution in spite of the presence of its competitors.

Various pressures have come to bear on both the teacher and the learner, leaving the latter to engage in more surface learning rather than deep learning in an attempt to manage course loads within a semester system. The broadening of matriculation requirements as well as financial assistance from the Trinidad and
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Tobago government in the form of Government Assistance for Tuition Expenses (GATE) for tertiary-level institutions has created a democratization of the education system. These have enabled an explosion of the student population, creating competition for resources, results and increased throughput. Of importance, too, is the renewed focus on quality assurance and accreditation – and hence on transparency and accountability – along with the new emphasis on teaching certification and the scholarship of teaching and learning as considerations for the renewal of contracts, promotion and tenure. There has been raised awareness among university staff of their importance as facilitators of learning, that is, as teachers and educators. This latter aspect is in keeping with UWI’s image as both a research university and a teaching university and is a manifestation of its pillars on teaching and learning in its current Strategic Plan 2007-2012.

On an individual level this lecturer has attempted, in order to avoid both lecturer and student experiencing ennui and monotony in the classroom as well as in the fulfillment of out-of-class tasks, to employ different teaching/learning strategies for tutorial and lecture sessions such as guided and interactive lectures, word journals, one-sentence summaries, focused listings, invented dialogues, word games and art. This also includes incorporating a blended approach, that is, both face-to-face and online teaching/learning, with a heavy use of the campus’ myeLearning (Moodle) facility.

This paper is a reflection on how this lecturer has attempted to instill more student interest and participation in her undergraduate Literature courses while at the same time trying to foster critical thinking and appreciation for the discipline. The time covers a three-year period (2008/2009 to 2010/2011) and the discussion focuses primarily on two assessment tools employed, concept maps and web pages.

This paper is derived from the use of these tools in the courses LITS 1201: Elements of Drama; LITS 1002: Introduction to Prose Fiction; LITS 2508: West Indian Prose Fiction – The Novel; LITS 2510: West Indian Prose Fiction – Short Narratives; and LITS 3702: African-American Women Writers. As with most other non-credit assignments, there were a few students who sometimes did not feel compelled to complete or submit the concept map; most only did so when the task was given as an in-class activity or was part of an out-of-class assignment for credit. For LITS 1201 tutorials, for instance, for which no student papers were required to be orally presented, the concept map was used to generate further discussion and analysis on the dramatic texts. Initially, for all courses taught by this lecturer, students were allowed to use posters and PowerPoint slides along with the oral presentation of their group projects. Because students are technologically savvy and also au courant with computer software and their applications, however, the lecturer felt that there should be diversity in the choice of strategies and methods used, especially since a significant number of the same students were being taught by the lecturer from one semester to the other. Since most of the LITS 1002 and LITS 2510 students in particular were ELLE Majors, they used wordpress, webnode and other software to construct their web pages which they had become familiar with in their Education courses. Students were given samples from Internet sources
of templates and websites for creating the concept maps and web pages, and were allowed autonomy in the creation of the designs. The finished web pages and concept maps, with the names of the students who created them, were subsequently uploaded onto myeLearning as a form of display and as tools for brainstorming and revision, to the benefit of all students in the class.

Generally, when given an option the Literature students preferred creating the web page, rather than the concept map, for their group projects and they demonstrated good organizational and cooperative skills by allocating and sharing responsibilities in its creation. The concept map seemed better suited to individual work; in addition, some students incorporated the map into their oral presentations for credit tutorial assignments even when they were not instructed to do so. Hence, this kind of initiative encourages this lecturer to continue using the concept map for both credit and non-credit purposes in order to reinforce to students that it can be used not just for assignments, but for brainstorming, discussion, revision, etcetera. Using concept maps and web pages catered to the various intelligences and learner types of the Literature students and allowed them to engage in the discipline in enjoyable and educational ways that supplement the act of reading.

**Concept maps for promoting critical thinking**

The CAPE Literatures in English Syllabus lays out the criteria under which students’ skills and abilities are assessed at the end of Units 1 and 2 in the areas of Knowledge and Understanding, Application of Knowledge and Organization of Information (p. 3). These Units require the study of at least four texts and, like the prerequisite courses LIE students at UWI must do in Level 1 of their programme, comprise three modules - drama, poetry and prose fiction (p. 4). The general comments for LIE in the Report on Candidates’ Work in the Caribbean Advanced Proficiency Examination for the years 2008, 2009 and 2010 have consistently outlined recurring weaknesses in students’ analytical and writing skills. In the former two years, the following observation was repeated:

In drama, theme, plot and characterization continue to be emphasized while insufficient attention is paid to the other generic features of drama, knowledge of literary devices and their function, and knowledge of literary context….In both poetry and prose, candidates need to understand not just the terms associated with the generic features, but the ways in which writers manipulate the different features of each genre to achieve artistic effect. The ability to explain how different artistic choices reinforce an author’s view on a particular issue is an important skill for candidates to learn; merely giving a list of features of the genre is not sufficient. In the prose genre in particular, candidates often simply narrated the story or relevant sections of the story rather than produce analytic essays. Candidates will have to continue to improve their essay
writing, question analysis and argumentative skills in order to improve their performance (p. 2)

In 2010 while there was evidence of improvement, certain areas of student performance still needed enhancing:

While candidates gained more marks for showing evidence of knowledge of genre, the performance on the poetry and drama modules was basically about the same, but there was a significant improvement in the performance on prose...Candidates will have to continue to improve their essay writing, question analysis and argumentative skills in order to improve their performance on the skill of application and organization (p. 2)

These remarks are relevant because many UWI students pursuing LIE would have been among the recorded 3,195 students who sat the CAPE examinations during this 2008 to 2010 period. Hence, they would have entered the university lacking certain proficiencies necessary to do well at this level. It is therefore incumbent on academic staff to find ways to allay and remedy the frustrations and weaknesses evident in recent student input. The objectives of the LIE programmes at CAPE and UWI are quite similar, and so one can see metaphorically that although there are gaps there is nonetheless a bridge from the secondary school to the university. One way to ensure that there is good maintenance of this bridge, as Jules (2011) reminded us, is to make university teaching/learning of LIE a fun exercise. Finding ways of enabling students to marry fun and enthusiasm for LIE with the need for rigorous study and a scholarly approach expected at this level has been a steady goal of and continuous challenge for this lecturer. Graphic organizers like the concept map and the inclusion of technology in the form of web pages are two tools that have been used to realize that goal. Since content, the what, is readily available in libraries and on the Internet, in the classroom more emphasis is put on how the information can be discussed, analyzed and assimilated. Attempts have been made to get students to engage with the course texts and research information so that they are self-reflective, analytical and critical without having to rely entirely on the views of critics which in some cases lead them to plagiarize because they do not trust their own ideas and ability. In the myeLearning component of each course, students had also been introduced to Howard Gardner’s theory of multiple intelligences, and to the VARK and Kolb learning inventories so that they could determine their learning styles. As budding literary scholars themselves, they need to learn how to engage more fully in metacognition; how to both agree and disagree with critics and theorists; and to arrive at and be confident in their own positions and conclusions. Although not all of them do, it is still the case whereby many LIE students, from secondary school to university, focus on regurgitating and reduplicating rather than on reasoning and evaluative judgement.
Fisher (2001) cites various definitions of critical thinking (Dewey, 1909; Glaser, 1941; Ennis, 1989; Paul, 1993; Scriven, 1997) that are pertinent to the capabilities this lecturer would like her students to acquire by the time they complete their LIE programme. For instance, Ennis’ (1989) definition states that “Critical thinking is reasonable, reflective thinking that is focused on deciding what to believe or do”; Paul (1993) says it “is that mode of thinking – about any subject, content or problem – in which the thinker improves the quality of his or her thinking by skillfully taking charge of the structures inherent in thinking and imposing intellectual standards upon them”; while Scriven (1997) defines it as “…skilled and active interpretation and evaluation of observations and communications, information and argumentation” (as cited in Fisher 2001, pp. 4 & 10). The value of concept mapping corresponds to the principles conveyed in these definitions.

Leahy (2009) observes that: “As learners grasp that concepts convey meaning and can be pictured, it helps them to see the power of maps. Maps can externalize our thinking, and show others how we connect concepts into meaningful patterns….The value of concept maps is that they help readers make sense of what they are reading, by extracting key concepts from the printed text and organizing them in ways that show how they fit together for the reader” (p. 58). Novak (1998) describes the advantages to the teacher insofar as the map is a useful tool of empowerment that allows the teacher to design better instructional materials and methods and to have teacher-student negotiation about knowledge and its meanings (p. 27). Hence, the concept map is beneficial to both the lecturer and student in the LIE classroom.

This lecturer used concept maps in both lecture and tutorial sessions, and assigned them for out-of-class activities. Two primary objectives were to use a variety of teaching / learning strategies to engage students’ attention and interest more fully and to cater to those who would benefit from the use of graphic organizers. Other important objectives included students being able to summarize, examine and analyze main points related to the elements of fiction in the prescribed texts; to apply theoretical concepts and reasoning; and to evaluate others’ and their own critical responses to those texts. The maps proved ideal for eliciting information and ideas from students at the start of the course to highlight its major preoccupations or to initiate discussion of a literary text under study. Students shared their completed concept maps orally and visually with the rest of the group by using other technologies in the classroom such as the document camera, or by drawing the maps on the whiteboard as they explained the selected points. While concept mapping is usually given as a non-credit assignment, for LITS 2508 students’ maps were collected and graded by the lecturer as partial fulfillment of the semester’s tutorial assignment load.

Primarily, the aims were for LIE students to use concept maps to comprehend, apply, analyze, synthesize and evaluate the elements of a literary text – be it a play, short story, novel or poem – and to be able to see in graphic form that each element is interrelated. Important, too, was for them to logically present and justify in a coherent way their own interpretations of the text. Hence,
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the idea of the thinking map and the semantic map was incorporated into their exercise in concept mapping. Maps were related to tasks involving sequencing, problem-solution, decision-making, comparison, cause-and-effect, clarification and point of view, for example. A variety of blank graphic organizers in the form of Venn diagrams, spider maps, fishbone maps, flow charts, T-charts, etc., were provided to students including web pages that demonstrated to them the various kinds of maps, their functions, and the software available online for templates in soft copy. More often than not, students who were technologically savvy were able to use the software to creatively design their own maps. The outcomes of students’ concept mapping were observed in terms of how they were able to visually present the given topics concisely and cohesively, and to orally describe content and explain their own reasoning for selecting the points displayed and in particular cases why they chose to use one kind of concept map rather than another.

In addition to using the concept map as a way to introduce a topic or revise key concepts for a course, this lecturer impressed upon her students that it could be used throughout the semester for brainstorming and within all cognitive domains of Bloom’s taxonomy; that is, the map could be used in activities related to knowledge, comprehension, application, analysis, synthesis and evaluation. In constructing their own maps, LIE students were seen to exemplify this observation by Novak (1998) that “…learners needed to construct their own maps and learn this method of organizing their own knowledge” (p. 31).

Web pages as fostering group collaboration

For LITS 1002 in 2008/2009 and for LITS 2510: West Indian Prose Fiction: Short Narratives and LITS 3702: African-American Women Writers in 2009/2010, web pages were introduced as the method for assessing group work. Designated groups were to use the web pages to present contextual and literary information on a chosen text and biographical information on its author / poet / playwright.

With respect to LITS 2510, for example, each assigned group was allotted a short story not studied for lectures or tutorials from the prescribed anthology that they were to read and critically analyze. There was more research material to be found on the authors than on the stories themselves, so that the material collated was a mixture of critical sources and students’ own interpretation of the stories. This material was to form part of what students would include in their web design and construction, in addition to images and sound. One group had the privilege of a face-to-face interview with one of the authors who is based abroad, but was on one of his sojourns home and willingly came to the campus to assist them with the project. These students were able to use photographs of that encounter on their web page. Because of the dearth of critical information on many of the short stories, students were told that their web pages could be useful sources for future students of the course. Their permission was therefore sought for their projects to be used at a later date, and they were encouraged to cite their names on the web pages which could be deemed as being their intellectual property. Indeed, these
web pages have been provided as material for students on subsequent myeLearning course sites for the 2010/2011 and 2011/2012 academic years. Hence, there was a long-term aim of the project as well.

LITS 3702 students were given a similar task as their LITS 2502 counterparts whereby they had to work together to provide information on prescribed writers and texts — novels, poems and a choreopoem; and those in LITS 1002 were required to present theirs on topics related to the introductory lectures of the course that oriented students to definitions and elements of prose fiction, and the emergence and classification of the novel.

The lecturer also provided a Wiki resource on all three LITS 1002, LITS 2510 and LITS 3702 course sites on myeLearning so that students could plan and develop their web pages. This asynchronous method was chosen because these courses included part-time and full-time students who had to work together for the project, but had clashing timetable schedules that restricted their ability to frequently meet face-to-face. Since each assigned group had its own Wiki, there was a level of confidence that there would be no poaching of ideas by, or premature revealing of planned presentations to, any other group. Importantly, too, the Wiki allowed the lecturer to keep abreast with the progression of the students’ preparation and to determine levels of participation and contribution.

As mentioned earlier, a significant number of LITS 1002 and LITS 2510 students who are ELLE Majors had been instructed in educational technologies from a previous course and knew how to use the software to create a web page. LITS 3702 students tend to be largely LIE Majors with no prior instruction in that area. For both courses, therefore, how-to Internet information was made available on myeLearning for students’ guidance. All saw it as a creative challenge and worked together in a largely learner-autonomous environment to fulfill the requirements of the project. They attributed various roles among themselves to members of each group based on their individual strengths and weaknesses, not only in terms of web page design but also in relation to research-gathering, idea-formation, and writing, for instance.

The primary objectives of creating the web pages were to foster collaboration and cooperative learning, enhance knowledge, bolster creativity and initiative, cater to diverse learning styles, and instill further enjoyment for the study of Literature among students. Quite importantly as well, students had to employ written and oral communication skills. They were required to present their projects orally and were given a mark scheme and a rubric beforehand on myeLearning that indicated how their cooperative learning and oral presentation skills were to be assessed. Students were also required to engage in a peer assessment exercise using the cooperative learning criteria that included roles within the group, quality of interaction, shared responsibility and group participation. For their oral presentation, students were evaluated on organization of delivery, evidence of research, content (quantity and quality), group participation, use of time, and use of technology.

Students were given instructions on their course outline which stated: ‘All members of the group must participate in shaping this assignment and editing it
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before submission. The finished product must be one coherent submission which everyone in the group has read and approved, not a disparate collection of pieces done by individual members with no collaboration.’ They were instructed to choose group leaders and distribute responsibilities evenly. Also, they were warned about plagiarism, encouraged to acknowledge all sources, and were told to proofread and edit and also to take responsibility for any mistakes, errors and other flubs evident in the projects which were uploaded by the lecturer onto the myeLearning course site subsequent to the oral presentations. It was quite impressive how students showed creativity with their presentations of the web page projects. They incorporated skits, tableaus, PowerPoint slides, videos and other creative ideas into their oral presentations which each group delivered to the entire class.

Undoubtedly, there were varying skills and abilities regarding computer and information literacy among them, as expected among a university population (Dupuis, 1997), with at least one mature student suffering from technophobia. However, in addition to having been introduced to web design in a previous course, many LITS 2510 and LITS 3702 students, albeit they were amateurs and not professional web designers, exhibited what has been said about web design fundamentals, namely, that: “Great Web sites are not built by individuals, they are built by teams with members that possess three essential skills” (Stubbs et al, 2000, p. 45). Stubbs et al (2000) identify these as writing, programming and artistic skills and it was evident that students collaborated in such a way so as to tap into and maximize these skills, as far as was possible, from members within each assigned group. Hence, it was apparent that group processes such as participation, influence, decision-making procedures, task functions, maintenance functions, feelings and norms (Felder & Brent, 2001) played a part in students’ successful completion of the project.

Stubbs et al (2000) explain in detail how web design is divided into information, interaction and presentation design and that: “Creating Web pages is relatively easy. Creating great Web pages, however, is somewhat more complicated. The key to creating outstanding Web pages is a specialized kind of planning called ‘design.’ Design involves thinking and planning for a variety of issues, like who will use the Web page, what you want to say, how users will get around, and how it will look” (p. 46; bold type in original text). Having been given instructions on their course outline that they had to read, critically analyze and design a presentation on the allotted short story or prescribed novel, collection of poems, or play it was clear that students bore these design principles in mind. They also engaged open-mindedly in the project knowing that their web pages could be used as tools of revision for their peers in the upcoming final examinations and as a databank of information for students doing the courses in subsequent semesters. Hence, besides the lecturer as an assessor, they knew who their audience was and what kind of content they were required to include. For their effort, collaboration, enthusiasm and innovation, students were rewarded with high marks. According to Walder (online), documents such as web sites used as student assessment tools entail digital literacy, allow for “the use of rich media to enhance the communication
of information” and encourage “critical evaluation of web based resources and the development of IT competencies.” These learning outcomes can be similarly applied to these UWI students’ web page project.

Concluding remarks and projections

It is noted that although the concept map was used in the classroom, on the whiteboard and on pre-designed blank worksheets, or created by students themselves for assigned non-credit, out-of-class work, this lecturer’s aim is to extend its use with computer software to devise maps for displaying the structure of a course to students at the beginning of the semester and for lecture notes on PowerPoint presentations. The latter was done only once at the end of the semester as a revisionary tool. Leahy (2009) notes that the “concept map and Vee complement each other” (p. 78), with the latter being “a more sophisticated and powerful tool that can incorporate concept maps, but it was designed to show the structure of knowledge developed to answer a telling question” (p. 74). Novak (1998) also explained that he “found it relatively easy to teach persons to construct Vee diagrams once they are familiar with concept mapping and the ideas that underlie concept maps” (p. 81). Therefore, in the future the intention of this lecturer is to incorporate the Vee diagram as another teaching/learning tool for LIE lectures and tutorials.

As regards the web pages, it was thought more manageable to assign groups based on the composition of tutorial classes. Hence, an entire tutorial class comprised one group. However, at least two groups exceeded a reasonable limit because of special circumstances related to students’ work commitments or timetable scheduling, and because this was a core course with more students unlike other groups in the elective course who were also required to do a web page assignment. Yet, in assigning this particular group project of web page design, this lecturer did not feel that a large number would be counterproductive because each group was expected to break into smaller units in order to allocate the various tasks in the creation of the web page. While other groups did not complain about the number of students having to work together, some members of one group which comprised the largest number of working students in the class as a whole did voice the opinion that it was problematic for them. In the future, therefore, the assignation of smaller groups will be given consideration. In addition to peer assessment that is usually required for group projects, students will also in the future be provided with a rubric to engage in self-assessment for both group and individual work to further improve their engagement with autonomous learning and to take more responsibility for their own learning.

The poster image in the appendix illustrates, among other related information, examples of the individual and group tasks related to concept mapping and web page design.
Concept maps and web pages in the Literature classroom are two tools which can aid the teacher and student to achieve their goals and objectives within the paradigms of assessment as learning and assessment for learning. Because most of the LIE students are ELLE Majors, it is hoped that when they become teachers themselves in the secondary school system they will transfer their enthusiasm, knowledge and skills to their own students, many of whom will be future UWI students.

References


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Appendix

A poster image illustrating individual and group tasks related to concept mapping and web page design.