

**INCLUSIVE TEACHING AND LEARNING AT THE
TERTIARY LEVEL: Approaches to Enhanced Accessibility
for Learners With Special Educational Needs**

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Foundation courses are a compulsory part of the curriculum at The University of the West Indies; servicing a range of faculties including the Humanities, the Social Sciences and the Natural Sciences. This means that within the courses lie a mix of learners, learning styles and abilities. Despite this reality, teaching methods employed favour an approach in which the learner does not present with special needs. FOUN 1001 *English for Academic Purposes* is one example of these foundation courses done by a cross section of students across the Humanities and the Social Sciences, offered every semester both locally and regionally. The main objectives of this paper are to examine modes that have traditionally underpinned the teaching of foundation courses and move from there to consider pedagogical issues raised by Universal Design for Learning and Differentiated Instruction as two specific approaches that pinpoint areas in which avenues for creating a more inclusive learning environment within language teaching at the tertiary level can be conceived. Secondly, we suggest various modes of presentation which are useful for students with various types of exceptionalities. The following questions will guide the discussions. At the tertiary level, how have foundation courses been presented traditionally? What are the recommended approaches for teaching foundation courses so as to cater for exceptional individuals in the classroom? How can an evaluation of both approaches improve practice in tertiary level classrooms? Finally, discussions, recommendations and conclusions will be presented. One key recommendation points to targeted, specific teacher professional development underpinned by the use of readily available technology to enhance pedagogy.

“One telling measure of how differently teaching is regarded from traditional scholarship or research . . . is what a difference it makes to have a "problem" in one versus the other” (Bass, 1999, p. 1). Bass argues that having a problem in scholarship and research is at the heart of academic engagement whereas a problem in teaching is not to be embraced, a “fix”

is needed and must be sought after. Changing the discourse as Bass suggests, from remediation to scholarship requires a response to the following: “How might we make the problematization of teaching a matter of regular communal discourse? How might we think of teaching practice, and the evidence of student learning, as problems to be investigated, analysed, represented, and debated?” (Bass, 1999, p. 1). Shulman (1998) in his discourse on course anatomy first posited that any activity that is branded scholarship should display three critical characteristics: “it should be public, susceptible to critical review and evaluation, and accessible for exchange and use by other members of one’s scholarly community” (para. 2). Teaching in the traditional sense is usually very private and conjures up images of the ‘sage on the stage’. Any comments and or questions by peers are often viewed with great suspicion and insular thoughts quickly emerge. Teaching as scholarship is then more desirable and should underpin all teaching at the tertiary level. Shulman argues that teaching as scholarship is a process which embodies five key elements: vision, design, interactions, outcomes and analysis.

Background

Course Anatomy

Shulman (1998) contends that courses are like organisms; each course has various parts and structures which have their own functions, but each part must work in tandem with other parts to achieve the course objectives and goals. FOUN 1001: English for Academic Purposes (EAP) is a semester long course offered at The University of the West Indies, St. Augustine Trinidad (The UWI). It is one of seven foundation courses available to first year students. Foundation courses on the whole attempt to provide entering students with basic skills important to writing and research at the tertiary level. EAP specifically targets the building of expository writing skills in terms of the basic organization and structure of an academic essay in relation to specific expository strategies such as analysis by division and classification for example, and research and documentation skills. The delivery of the course includes both face to face and online measures, a blended approach. It has quite a large range - servicing students of the Faculties of Humanities and Education and Social Sciences as well as other teaching and learning institutions throughout the Caribbean. The course in its present form makes basic assumptions about the target population. These include that in addition to possessing the entry level requirements which include a grade 1 in CXC English Language for example, it assumes that the typical student also possesses all the required

resources and abilities to function appropriately in a blended environment of face to face and online modes. In its present form delivery modes make little accommodation for students who may be hearing or visually impaired or suffer from common learning disabilities such as dyslexia. The University's current policy requires that students who fall into this category, self-identify and make contact with the University's Student Life and Development Department (SLDD) which can advocate on a student's behalf. Services typically offered are limited and include requests for extra time on examinations, special venues, seating accommodation and counselling. None of these interventions address the issue of the design of course material. The reality though is that access to tertiary education through government initiatives such as Government Assistance for Tertiary Expenses (GATE) means that the level of diversity in the student population is gradually increasing and will have an impact on foundation or entry level courses which are compulsory for students. This means that there is need for the university as a whole to address the challenge of providing for a changing student population. There is therefore a growing imperative to consider the design of courses to ensure suitability for a range of students with diverse needs.

Course in Present Format

EAP as a course is notable for the ways in which it has been adjusted over time to reflect the needs of its students. University level writing courses first made their debut in the 1960s at The UWI. It was believed that students registered with the required competencies. The shortcomings in this assumption gradually saw a refining of focus with more emphasis being placed on grammar and specialization in specific expository modes (Milson-Whyte, 2008). In the 1990s there was a shift again from individual coursework formal essay examination as well as a final examination to a more developmental and collaborative process practiced today, where students work together to create outlines and then through a process of continuous feedback produce the complete essay moving through the stages of outline to body paragraph to complete essay. Students are supported along the way not only by tutors in small classes of no more than 20, but also through the provision of writing and grammar workshops which target specific problem areas in language. Students also have the benefit of accessing the University's writing centre where writing coaches offer individual attention to participants. The Foundation Unit which has responsibility for delivering EAP and all its sister courses also offers a practice writing service where students can submit samples of their writing for evaluation and consultation.

The delivery of course content is facilitated through weekly two-hour plenary or lecture sessions and one-hour tutorial sessions. Students are required to attend one plenary session and one tutorial session each week. The course also contains an online component - myeLearning where students can complete self-paced independent exercises as well as view summarized PowerPoint presentations of lectures. The plenary sessions however are where the main content is delivered and the principles of the specific expository method are introduced. Lecture sessions are delivered in large halls typically with a seating capacity for 200-400 students. There is a fixed raised podium at the front which accommodates the screen on which multimedia projections will be shown, as well as the presenter's podium and computer/laptop. Typically, a PowerPoint presentation is shown. Students can take notes and ask questions during the presentations. Seating is fixed in an amphitheatre type arrangement. If a student has a physical disability requiring wheelchair assistance there are ramps. These students are usually placed just under the podium to the front. If a student has a particular learning disability the situation becomes a little more complicated. Sight-impaired students for example must have their own specialized equipment that will allow them to "view" material presented as well as retrieve material from the online environment. No department protocols have been established for dealing with visual or hearing-impaired students within the tutorial setting. How these students fare depends on the level of sensitivity of the specific tutor as well as the student's own willingness to be proactive to contact the SLDD to advocate on his/her behalf. Though as noted before, this advocacy does not include modifications of course content from the particular course perspective. Accommodation for students with learning disabilities such as dyslexia typically includes no modification of content but instead assistance in the form of additional time at formal examinations; these students may also be allowed to type instead of hand-write final exam papers and a trained/willing tutor in assessing the written product of dyslexic students evaluates the student's competency. If a student with a learning disability does not self-identify to the SLDD then no provision is made within foundation courses. Similarly, students who because of the nature of assignments within the course may wish to incorporate differently-able students into group activities are left to their own devices. No material is provided to them from the course/department to facilitate or maximise interaction with a differently-able peer.

In terms of delivery as indicated earlier, the lecture mode dominates and while the disadvantages of this mode have been fairly well-documented (Bligh, 1998; Cashin, 1988; Finkel, 2000), the advantage remains that it allows for the dissemination of material to a large group at

the same time. There are also strategies such as breaking up lectures with “short cooperative processing times” which can assist in maximising learning opportunities within the lecture (Smith, Sheppard, Johnson, & Johnson, 2005). The forum also facilitates question and answer periods where misconceptions or misunderstandings can be quickly addressed; however, this mode assumes that all students present can see, hear and follow at the same pace the content-rich slides presented. Tutorial sessions on the other hand are much smaller and intimate. Tutorials allow students an opportunity to practice skills- primarily language and organization under the supervision of an assigned tutor. The collaborative environment also encourages all the benefits of collaborative learning. Still, because the venues are small - twenty chairs organized around a long central table with a white board at the front of the room, there is limited room for physical movement or re-organization of the space. These sessions are also approximately one hour long and tutors have complained that there is very little time to explore creative ways of meeting the curriculum objectives assigned. If the course is therefore to meet the needs of a diverse student population a re-conceptualization of teaching is imperative.

The Problem

The current problem manifests when teaching foundation courses at the tertiary level that includes teaching students with special educational needs (SEN) in the same spaces as those students without SEN. Students with SEN often experience reduced accessibility as special needs considerations are not viewed as a significant part of Schulman’s five key elements: vision, design, interactions, outcomes and analysis.

Objectives

The main objectives of this paper are firstly, to review the traditional modes of presenting foundation courses with a focus on EAP. Secondly, to suggest various modes of presentation which are useful for students with various types of exceptionalities. Finally, discussions, recommendations and conclusions will be presented.

Guiding Questions

The following questions will guide the discussions:

1. At the tertiary level, how have foundation courses traditionally been presented?

2. What are the recommended approaches for teaching foundation courses so as to cater for exceptional individuals in the classroom?
3. How can an evaluation of both approaches improve practice in tertiary level classrooms?

Review of the Literature

In the literature review section which follows we examine inclusive teaching and learning at higher education, the theories that have traditionally underpinned the teaching of foundation courses and move from there to consider pedagogical issues raised by Universal Design for Learning (UDL) and Differentiated Instruction (DI) as two specific approaches that pinpoint areas in which avenues for creating a more inclusive learning environment within language teaching at the tertiary level can be conceived. Students with SEN are generally regarded as those students who need adjustment to curriculum and/or teaching techniques to function effectively in the learning environment. Students with SEN range from the most profound of disabilities to those students who may be gifted and talented; this broad range of need demands not only variability in classroom response but also a continuum of placement options to meet the educational needs of all students at The UWI. There are some 13 recognized disability categories according to the Individuals with Disabilities Education Improvement Act (IDEIA, 2004). Referred to hereinafter as IDEA (Hallahan, Kauffman & Pullen, 2013). The likelihood of students with any one or more of the IDEA categories of need presenting in a classroom at the tertiary level varies depending on the prevalence estimates at this level. In keeping with international prevalence estimates, the occurrence of students with learning disabilities and difficulties in classrooms is more likely to occur than other categories of special educational need. In general, Learning Disabilities account for 50% of all disabilities which present in classroom settings (Hallahan, Kauffman & Pullen, 2013). Other common categories of educational need include emotional and behavioural disabilities, difficulties with hyperactivity and attention/inattention, physical disabilities, and sensory disabilities such as blindness/visual impairment and deafness/hearing impairment. Recognizing that students will present with SEN demands a response in the form of course design, adaptations, accommodations and the use of enhanced technologies in the classroom.

Thomas and May (2010) posited that inclusive teaching and learning can be viewed as “the design of curriculum and pedagogy to facilitate an inclusive community of learning for all students, whatever their background, and which challenges and supports individuals to achieve

their full potential” (p. 19). This is applicable at all levels. Traditionally, the efforts geared at the paradigm shift towards a more inclusive education system have been focused at the primary and secondary level. However, in recent years, higher education has become more inclusive; but, the curriculum and teaching methods have not been altered sufficiently in response to incorporating diverse students and meeting their unique educational aspirations. The one-size-fits-all, traditional model of lecture-style teaching and teacher-driven education continues to dominate at the tertiary level (Dosch & Zidon, 2014).

Principles of English for Academic Purposes

The traditional format for the presentation of foundation courses which include English for Academic Purposes, has hinged on two main approaches to the teaching of English at the tertiary level. There is the genre-based approach, coming out of the work of Swales (1981,1990) and Bhatia (1991, 1993) which theorizes that students can be taught to master the requirements of a specific writing style or genre by analysing the frequency with which certain linguistic patterns or moves are repeated. Genre theory is therefore broadly concerned with the ways in which individuals use language within specific communicative contexts and how they draw on their knowledge to make appropriate choices suitable to context. Writing is seen according to this view as a social practice modified by the context in which it is required (Hyland, 2003). Good writing is therefore not confined to a universal standard but is influenced by the environment - school, work, home in which it is practiced. Text and context are thus the two pivotal axes on which student learning is pinned (Hyland, 2003). Genre-based teaching to some extent is seen as part of the backlash to process teaching which advocates that through a process of practicing models provided by the teacher, students can learn to produce error-free writing. Multiple drafts, feedback, a cycle of prewriting and drafting - moving towards the completion of an edited, finished product, the incorporation of peer review are hallmarks of the process approach.

Critics of the process approach argue that the emphasis on learner autonomy leaves little room for “ways of scaffolding students’ learning and using knowledge of language to guide them towards a conscious understanding of target genres and the ways language creates meaning in context” (Hyland, 2003, p. 21). There are others though like Badger and White (2000) who argue that genre and process approaches to writing should be seen as complementary rather than opposing approaches. They point out that both see writing as primarily a linguistic activity- though with greater emphasis being placed on social context in genre- based

writing. Seemingly in line with genre-based approaches, each foundation course emphasizes a particular style of writing deemed suitable to a specific context - there is thus a foundation course for science students, one for law/literature students. EAP with its focus on expository writing is seen as the one with the widest applicability to the tertiary writing environment. Within each course there is emphasis - in line with process approaches - on the importance of drafting, peer feedback and evaluation. Research has also shown that good feedback is important to helping learners to be able to self-assess and improve their learning (Nicol & Macfarlane-Dick, 2005). One criticism raised however about process/product approaches is the devaluation of prior skills of the learner. This is a significant criticism in light of the focus of this paper. As has been shown, the present structure of foundation courses gives little consideration to the skills that a differently-able learner may possess and while the present curriculum focus of the course is developed around a process core of pre-writing, drafting, editing as well as consideration for audience needs and context, there is also a need to consider context from the perspective of learners with different abilities. UDL offers an approach through which the benefits of both the genre and process approaches can be employed for maximum learner benefit.

Universal Design for Learning Format

The UDL concept has its genesis in the discipline of architecture. UDL was first developed by Anne Meyer and David H. Rose, co-founders of Centre for Applied Special Technology (CAST) - a non-profit organisation (2000). UDL is a set of principles geared towards the development of curriculum and supporting instructional materials and activities that make participatory and learning goals achievable by students with notable differences in their ability to see, hear, speak, move, read, write understand English, attend, organize, engage and remember. UDL is underpinned by three basic principles: (1) Multiple Means of Representation, (2) Multiple means of Expression, and (3) Multiple Means of engagement.

The first principle underlying UDL is the belief that there are multiple ways of representing knowledge during the learning process. Representation is defined in the literature as designing instructional materials that make content accessible to the greatest number of diverse learners (Capp, 2017). Hitchcock et al. (as cited in Capp, 2017) elaborated by recommending the use of multiple examples which allow classroom teachers to highlight the critical features of a concept and differentiate that concept from others. This facilitates both deeper engagement and broader

access to the concept. Scaffolding is a strategy that complements this principle as it identifies for students, relevant information and potential solutions, thus simplifying tasks (Coyne, Pisha, Dalton, Zeph, & Smith, 2012). Secondly, Multiple means of Expression is based on the premise that students can demonstrate their action and expression in many ways. Moreover, proponents advance that providing students with control of their education and choice of activities increases student engagement. Thus, by providing students with choice in terms of both how they access information, and represent their knowledge and understanding, accessibility to the learning process is increased for all students (Katz, 2016). Multiple means of Engagement is the final principle underlying the UDL framework. Student engagement is generally a secondary outcome measure of using principles one and two of UDL to improve the learning process (Capp, 2017), therefore, within the UDL framework, providing multiple means of representation and expression leads to student engagement. Each UDL principle can be implemented by adhering to a set of accompanying supporting principles which direct classroom delivery and the creation of classroom instructional materials (Meyer & Rose, 2006; National Center on UDL, n. d.). For example, it is noteworthy that technology integration underpins each principle of UDL as it provides both the teacher with a means of representing knowledge in multiple ways, and students with a means of demonstrating their understanding in multiple ways (LaRocco & Wilken, 2013).

Differentiated Instruction

In explaining a differentiated classroom, Tomlinson (2014) notes that there are two “givens” which are critical. Firstly, there are content requirements and secondly, there are learners who are all unique and therefore vary in how they engage in the teaching and learning process. The philosophy that underpins activity in a differentiated classroom is that a nurturing environment promotes learning. Tomlinson further posits that differentiation is a teacher’s proactive response to a variety of learner needs and this response is shaped by the teacher’s mind-set and philosophy. Teachers who utilize DI take into consideration multiple aspects of learners to best meet their educational needs. Three diagnostic formative components are utilized to best understand personal characteristics of students and their academic skills: readiness, interest, and learning profile (Tomlinson, 2001). Student readiness refers to a student’s proximity to the desired educational outcome based on background foundational knowledge, past experiences, opportunities for learning, and skill level. Student interest is akin to intrinsic motivation

because if one taps into a student's interest, motivation is increased (Dosch & Zidon, 2014). Finally, a student's learning profile is defined as "a preference for taking in, exploring, or expressing content" (Tomlinson & Imbeau, 2010, p. 17)

Additionally, the teacher's response will be guided by the following general principles of differentiation: an environment that encourages and supports learning, quality curriculum, assessment that informs teaching and learning, instruction that responds to student variance and leading students and managing routines. Teachers can therefore differentiate through Content, Process, Product, Affect/Environment. Content is therefore that body of information conveyed in teaching/learning. Process is the mechanism by which students actually learn the content. Product is the output, the way in which students demonstrate learned content. Affect/Environment is the feel or tone in the classroom. How students actually deal with the teacher's methods will depend on their readiness, interest and learning profile. Teachers will use a variety of instructional tools in proactive response to the two givens content and learner needs. Tomlinson (2001) highlights the flow of instruction that guides a differentiated classroom moves from whole class preparation, to review and sharing, to individual or small group engagement.

The literature has revealed the success of DI at the primary and secondary level, but only a few studies have tackled the effects at the tertiary level. However, of the few, there is cause for some optimism as Livingston (2006) found success utilizing differentiated instruction in his undergraduate education course and a 2010 study revealed that the students successfully met the course objectives and that the participants in the experimental sections perceived the course more positively due to the differentiated methods of instruction (Chamberlin & Powers, 2010). Furthermore, in a local study, Joseph, Thomas, Simonette and Ramsook (2013) concluded that "modeling differentiated instruction at the tertiary level yielded more positive than negative outcomes" p.39. Additionally, it was highlighted that student perceptions of differentiated instruction were also encouraging with 90% agreeing that the differentiated instructional approach stimulated their interest in the curriculum studies course and the majority reported higher levels of intellectual growth as a result of exposure to differentiated instruction (Joseph et. al., 2013).

Discussion

Applying the lens of UDL to foundation courses in general raises the following concerns. Firstly, present course delivery is not suitable for all students as it is based on one size fits all, one premise is that all students

can write. Secondly, content is delivered mainly verbally without special consideration for the physically impaired, the hearing impaired or the visually impaired. Thirdly, there is the issue of time. The English Language Foundation Unit does provide writing workshops in the form of grammar and writing but the limited time period for each session does not necessarily facilitate the needs of the special learner. A UDL approach to teaching advocates for a variety of modes of expression. This UDL principle requires multiple modes of representation, but in this course there are no alternatives to auditory information within the classroom. UDL also promotes multiple modes of action, currently within course material and delivery there are few illustrations of concepts non-linguistically. An accurate description of FOUN 1001 indicates no integration of assistive technologies and no choice of media for communication.

A Differentiated Foundation Course

The acquisition of information, behavioural skills and attitudinal change as identified by Bligh (1998) still remain key areas of focus at the tertiary level, but these can still be achieved taking into account special needs. An examination of FOUN 1001 reveals that there is a strong base that can be enhanced through the application of UDL. The description, purpose, goals and objectives remain the same. A few adjustments therefore can assist in fully realizing the objectives of the course for all learners. Content, organisation, teaching strategies and assessments would be the focus of change. Each of these is taken below:

Content

Weimar (2002) points to the importance of adopting teaching strategies that would ensure a “learning-rich” environment for all learners is maximized. Thus, in EAP intensity and depth would be the two main areas of concentration for students with learning disabilities. These would have to be tailored to cater for learners who require different levels of specificity. Stages of the writing process for example, can be explained either as simple one-line statements or more complex paragraphs going into specific detail at each stage. Similarly, when discussing expository strategies, since there are choices linked to assessment, the choice can be made considering the limitations each student may have. Students can be specifically steered into a particular strategy by making the instruction for that specific strategy more detailed than another. Brueggemann, White, Dunn, Heifferon, and Cheu (2001) argue for the adoption of non-traditional means of assessment within the composition classroom that cater for students with special needs, so that where

written proposals, outlines or early drafts are required experiment with drawing, sculpting or dramatizing the plan. Being asked to conceptualize a project from a different perspective can trigger new insights for all writers, helping us generate connections we might not have made in word-locked prose. (p. 381)

This means that all students can benefit from a learning environment that encourages pedagogical diversity.

Organisation

Organisation can be amended to include a continuum of groupings by numbers. The advantages of cooperative learning have been well-documented (Bonwell & Sutherland 1996; Gibbs & Simpson, 2005; Oakley, Felder, Brent, & Elhajj, 2004). Evenbeck, Ross, and Kinzie (2010) also advocate for “interaction with diversity” as a means of encouraging students from different faculties, backgrounds and skills opportunities to work together in groups. There is even research to show that the optimum group size for learning consists of three to five members (Oakley et al., 2004); however, consideration has to be given to the fact that for students with learning challenges, groups of two might be optimum - with accommodation also being made for those learners who may need to work by themselves.

Teaching Strategies

Lectures or plenary sessions need to move beyond “chalk and talk”. The PowerPoint should be used expertly, avoiding the overuse of text. Even at the tertiary level many learners are visual learners. More use must be made of graphics and graphic organizers in order to facilitate wider participation. Students can easily slip through the cracks if careful monitoring is not done. In support of technology integration, Kennedy and Deschler (2010) suggest that “literacy instruction should reflect multimedia design principles that are a match for the cognitive learning needs of the intended population of learners” (p. 293). For learners with challenges a multimodal approach is recommended that incorporates both the oral and written word; a variety of practice opportunities and one on one instruction, incorporating where possible the use of assistive technologies (Leons, 2013).

Course Assessment

Generally, students with special needs perform better on coursework than they do under examination conditions. A flexible divide between the percentage for coursework and the final exam needs to be considered for

students presenting evidence of special needs. Consideration should also be given for alternative forms of assessment aside from paper and pencil. Giving students extra time to complete assignments should also be considered (Aithal & Kumar, 2016).

Students with special needs should be given an opportunity to demonstrate their mastery of content through portfolios, oral assessments and even through 100% in course continuous assessment. Again, ample use must be made of both low-tech and high-tech devices for assessment as well as for teaching and learning within the course. Variable modifications to credit assessments should be incorporated in the whole assessment framework. A variety of rubrics should be provided to accommodate for modifications to both course content and assessment responses.

Independent Study

While the myElearning component of the course offers opportunities for self-paced learning, further infusion of technology is required in the form of text to speech devices which work well for students with mild to moderate reading difficulties. And while there is a cost to the incorporation of these devices, this also has to be balanced against the fact that the creation of a more inclusive learning environment will also give the University a competitive edge in an increasingly aggressive educational marketplace. There must also be some re-calibration of course policies. Classes and mandatory attendance for students for example, need to be balanced against what is available in the physical environment as regards accessibility to students in wheelchairs, crutches and tutorial rooms. Adjustments can be made to provide alternative means of attendance such as teleconferencing using platforms like Zoom and Moxtra where students who are physically challenged can access both plenary and tutorial sessions.

Recommendations

Teacher Education

Although, The UWI since 2006 has mandated that all incoming lecturers be trained in the Master of Higher Education (M.HEd.) or The UWI Postgraduate Certificate in Teaching and Learning (CUTL) programmes to ensure quality and standardized training at the tertiary level, there is need to incorporate techniques to equip lecturers to recognize and respond to diverse learning needs within the tertiary level classroom. While adult learners will take greater responsibility for their learning than learners at

other levels of the education system, these adult learners still need the informed consideration of tertiary level facilitators. In a seminal study Wong and Wilson (1984) concluded that when students with learning challenges are taught how to organize ideas around core subtopics related to expository writing they were able to move successfully to understanding how to put together paragraphs. This is particularly important in teaching expository writing, particularly as Gersten, Fuchs, Williams, and Baker (2001) observe that students “with learning disabilities have more difficulty learning about basic text structures such as compare-contrast and cause-effect” (p. 297). Teachers who are trained in *strategy instruction methods* for example, can show learners “...how to attack expository material, to become more deliberate and active in processing it” (p. 298). The reality is also that students are moving up the education ladder and as such the end product is influenced by what has happened in the primary and secondary schools. Linkages will provide a seamless transition and ensure that at all levels teachers are aware, prepared and facilitating the development of all learners using similar concepts, ideas and practices throughout. Teacher education is thus a critical component moving forward.

Architectural Design

As the university continues to physically expand, thought must be given to the construction of spaces of learning that help in the creation of environments that are conducive for learning for a diverse population. The fixed design currently employed mitigates against this. Bennet (2007) makes a convincing case for paying attention to the physical design in higher learning:

We often start the design of learning spaces with service and operational considerations rather than with questions about the character of the learning we want to happen in the space . . . The better we understand the design elements that afford college students opportunities to learn and the spaces in which students may act on these opportunities, the more likely we are to design successfully and get full value from our investment in learning spaces. (p. 14-15)

Each category of need requires unique plans to respond to individual needs. Considering the requirements of a diverse learning population is another critical component of encouraging best practice at The UWI.

Classroom Interaction

The fixed one-hour tutorial format should be changed to allow students with special needs the opportunity to access one on one sessions or small group sessions where meeting individual needs will be easier. Some strategies that have been employed by other higher educational institutions include making course material available in more than one format - sometimes in a simplified version; increasing classroom assessment to include forms that do not incur marks but serve as developmental markers for learning challenged students; and assigning student mentors to assist challenged students (Athler & Kumar, 2016). The cry is always resources but providing for the needs of a diverse population is one of the strategies that universities are investing in to build their student intake.

Cross Faculty Collaboration

The study also indicates a need for more cross faculty collaboration for the collection of data to determine which changes need to be made to facilitate all learners utilizing best practice. One of the things that was most evident in approaching this study was the paucity of data on the intake and throughput of students with special needs at The UWI. Cross faculty collaboration is needed to research pertinent issues such as how identified students perform across different subject areas? What are the strategies being used in different faculties to teach a diverse learning population? Can these strategies be successfully deployed in other subject areas? What can be done to assist the self-perception of learning challenged students who exist in a wider societal context that stigmatizes difference? Are there faculty procedures or cross-faculty endeavours that can assist? Changes in administrative policies are needed. Much more in terms of support needs to be done to assist the SLDD. Athler and Kumar (2016) point to the practice of relaxing 5 percent of the minimum marks on entry level tests for incoming students who meet the general entry level requirements as a means of encouraging their pursuit of higher education and following this up with organized support measures through their study.

Conclusion

Foundation courses such as EAP which target a wide cross-section of the student population should lead the way forward as models of inclusive opportunities explored and served at the tertiary level. A move away from traditional teaching and towards teaching as scholarship will ensure that the needs of all students are met within these inclusive opportunities. The recommended approaches for teaching foundation courses are UDL and

differentiated instruction. These teaching strategies will address the problem of meeting the challenges that diverse learners in the classroom pose. Additionally, adjustments in the areas of teacher education, architectural design, classroom interactions, and cross faculty collaboration are seen as key to enhanced accessibility for learners with special learning needs at the tertiary level.

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Inclusive Teaching and Learning at the Tertiary Level

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