Abstract

This paper discusses the contours of developing a 21st century course syllabus that empowers students in the learning process to become critical thinkers, problem-solvers, innovators, and collaborators. The author draws from transformative learning theory to provide detailed information on the characteristics of a syllabus, its universal components, interpreting course code, uses of a syllabus, accessibility, and backward design. He also draws from Bloom’s taxonomy to offer a pragmatic guide to syllabus creation with concrete examples on how instructors can employ a backward design approach for syllabus development to effectively create a syllabus of a course they have never taught before. The author concludes by reiterating that the overarching emphasis of teaching with a syllabus is to promote higher-order thinking and deeper learning in higher education because a syllabus that promotes such practices and knowledge transfer maximizes learning outcomes.

Keywords: Syllabus, Learner-centered, Learning outcomes, 21st Century Skills, Higher education

Introduction

Wilhelm von Humboldt, a German philosopher, is the founder of today’s modern university system that transformed universities from training-oriented professional institutions couched in transmissive pedagogy to the present-day higher education institutions that are committed to the discovery of, pursuit of, search for, knowledge (Mueller, 1991). The goal of using a syllabus to teach college courses is to ensure that modern higher education institutions meet the goals for which they were founded. This paper is aimed at strengthening professional development skills of higher education instructors in syllabus development.

It is a truism that higher education in any country is a citadel of knowledge production and consumption. While one would expect a fair balance between research and teaching in a university, many organizations concerned with the quality of programs only tend to use research output as a yardstick of an institutional value, thereby undermining teaching (OECD) which is one of the most crucial aspects of college education. This may explain why there is no teacher preparation program for university instructors as it is the case for K-12 teachers. Although professors are content experts in their various fields, most of them did not take formal coursework on pedagogy. Nonetheless, many would claim that they master college teaching and do not need professional development in pedagogy on grounds of their extended apprenticeship of observation (Lortie, 1975). Apprenticeship of observation is predicated on the notion that by the time a student has completed their K-12 education, they had amassed more than 13000 hours of teaching observations as they observe their own teachers and professors teach them. Whether a professor has received formal preparation in college teaching or not, there is a general consensus that they should all know how to conceptualize and develop a syllabus for each of the courses that they teach so as to improve the quality of college education. This essay offers a pragmatic guide to syllabus development...
using transformative education theoretical framework. A syllabus can be defined as a course roadmap that provides the various makeups of a course such that prospective and current students in the course are abreast with the course objectives and expectations. As Parkes et al. (2002) posit, a syllabus serves as a contract between the instructor and the students given that it contains vital information regarding course description, course readings, assignments and their deadlines, attendance policy, roles and duties of students as well as the responsibilities of instructors. While research on syllabus is very limited, most of it has focused on its purpose and its required components. Calhoon et al. (2008) went outside the norm to study how students use syllabi. They contended that students access syllabi on a regular basis when the syllabi contain information about assignments, due dates, and rubrics.

It is worth noting that syllabus embodies a lot of intricacies owing to educators’ varying philosophical orientations and dispositions. Paradoxically, such orientations are not as diametrically different among educators in developing countries owing to the fact that they all studied through a very traditional and transmission-oriented pedagogy. Thus, a plurality of educators still strongly believes in the banking concept (Freire, 2000) in which the instructor is the sole owner of knowledge and the reading material and only share them with students during lectures. Such an entrenched belief in the sole proprietorship of knowledge in a specific domain influences instructors’ choice of tone, content, delivery methods, expectations, objectives, instructional activities, and course policy during the syllabus design process. While it is unheard of in higher education in the United States that college professors could teach a course without a predesigned syllabus, it is still a ubiquitous practice in some countries around the world. Many students are still graduating from college without ever having had any exposure to the syllabi of the courses they took. It was within this backdrop that the author of this essay decided to write an article on strategies of developing a learner-centered course syllabus so that it could benefit all the faculty members who are interested in maximizing their students’ learning outcomes through active learning, but who do not know how to go about it. In the subsequent sections of this essay, a conceptual framework will be discussed, followed by characteristics of a syllabus, procedure of syllabus design, and conclusion.

Conceptual Framework
For this article, a transformative learning theory is used to discuss the merits of designing a learner-centered syllabus. Transformative learning theory, coined by Mezirow et al. (2000) in the 1970s, was initially used in the field of adult education before becoming mainstreamed in the education field as a whole. It is a relatively new terminology that was first used to describe a new teaching and learning process that involves meaning making out of new information to ensure that knowledge is transferred and applied in real-life contexts beyond the classroom. It encompasses reviewing, manipulating, and interpreting current and past experiences to make meaning. It also embodies critical thinking and critical literacy-

Learning to deconstruct and reconstruct concepts, theories, ideologies, and worldviews. In other words, learning is preceded by disorienting dilemmas because a previous experience has been disrupted. Thus, transformative education could engender psychological trauma since it problematizes a perennial practice that has been normalized over the years (Todd, 2003). Education is supposed to lead to the transformation of the learner and consequently the society. Many teachers in developed countries already employ transformative education theory in designing and teaching their courses given that transformative education cultivates critical thinking skills in learners. It also places strong emphasis on creativity and problem-solving skills which are essential skills for the 21st century problems.

The contemporary notion of transformative education transcends the adult education field into broader view of education as an art of transforming learners and not just informing them. As Yacek (2019) argued, transformative education requires psychological re-structuring for effective learning to take place because it requires an in-depth critical reflection about previously held beliefs to determine whether those previously held ideas should be upheld or discarded. It requires perspicacious determination of what to reject and what to substitute previous knowledge with. Thus, syllabi should be designed in such a way that educational goals will be formed around addressing the fundamental question of educating more for transformation and minimally for information (Rosebrough et al., 2011). Not all education acquired is considered transformative. For Yacek (2019), it is only transformative when an educational experience is identified as an extraordinary monumental change in a learner’s personal development, shattering previous beliefs and worldviews while
ushering it fresher perspective on prior concepts. The word transformative ought not to be viewed as a buzzword given that almost every learner at all ages experiences some sort of transformative experience in formal and informal contexts. There are Christians who become atheists and vice versa. There are homophobes and transphobes who become pro-LGBTQ. There are climate change deniers who become major advocates of environmental education. It is vital to harness the facts that contributed to such transformation so that educators can draw from those narratives to enhance transformative pedagogies. In transformative education, there is a major shift in students’ habits of thought and action (English, 2014).

It does not, therefore, suffice to create a syllabus for a creation’s sake. It has to be purposefully transformative, learner-centered, and laser-focused on building students’ 21st century competency skills. Incorporating multifaceted pedagogies ensures that learners are metacognitively reached so that they can become proficient in addressing 21st century problems.

**Characteristics of a Syllabus**

The overall tone of a syllabus is undergirded by the university’s mission and vision statements as well as the teaching philosophy of the course instructor. Where there is no mission statement foregrounding the kind of education that the university values, there is likely going to be less uniformity in the curricular and pedagogic approaches across syllabi. Thus, it is of utmost importance to review and incorporate the mission and/or vision statements of the university and departmental college into the syllabus because they serve as overarching guiding tone and direction in the development of the curriculum as well as the instruction. Here are a few examples of university mission and vision statements and how they can shape the development of syllabi in these institutions:

**Mission statement of the University of Michigan (UM)**

“The mission of the University of Michigan is to serve the people of Michigan and the world through preeminence in creating, communicating, preserving and applying knowledge, art, and academic values, and in developing leaders and citizens who will challenge the present and enrich the future” (umich.edu).

It is evident from this mission statement that UM values critical thinking skills, leadership skills, civic education, knowledge creation and knowledge application. It is up to the instructors to infuse theses values in their syllabi.

**Mission statement of the Ball State University (BSU)**

“We engage students in educational, research, and creative endeavors that empower our graduates to have fulfilling careers and meaningful lives enriched by lifelong learning and service, while we enhance the economic, environmental, and social vitality of our community, our state, and our world” (bsu.edu).

BSU’s mission statement iterates research, creativity, preparing students for fulfilling careers, social, environmental, and economic sustainability. This mission statement gives a bigger picture of the university’s overarching goal that instructors in that institution use or ought to use as a starting point when designing a syllabus.

**Vision Statement of Indiana University (IU)**

“Our mission is to provide broad access to undergraduate and graduate education for students throughout Indiana, the United States, and the world, as well as outstanding academic and cultural programs and student services.

We seek to create dynamic partnerships with our communities in economic, social, and cultural development and to offer leadership in creative solutions for 21st-century problems, and we strive to achieve full diversity and maintain friendly, collegial, and humane environments, with a strong commitment to academic freedom.

To achieve our vision as one of the great research universities of the 21st century, we will:

- Provide an excellent, relevant, and responsive education across a wide range of disciplines in baccalaureate, graduate, and professional education, to students from all backgrounds
- Pursue excellent world-class research, scholarship, and creative activity
- Engage in the economic, social, civic, and cultural development of Indiana, the nation, and the world by building on the base of excellence in research and education” (iub.edu).

IU has a comprehensive vision statement that covers almost all the various mission iterations of UM and BSU. Some of the major highlights of its vision statement include: access to higher education, research, leadership skills in creativity, academic freedom, inclusion, diversity, social, economic, and civic vitality of the community.
Each university is established to address the societal needs and the labor shortage of the state or region in which it is located. National and international needs are often secondary at the creation of the institution, but could subsequently occupy frontline positions in the institution’s curriculum. A well-crafted syllabus in MU, BSU, and IU will explicitly and implicitly address most of the major themes of the university’s mission statement. The syllabi may foreground specific content knowledge, ways of knowing, communication, research, experiential learning, environmental sustainability, collaboration, creativity, problem-solving skills, and community service. A university’s mission/vision statement sets the tone of an educational culture on the entire campus. Such a tone is then replicated in the various syllabi throughout the campus. A course syllabus needs to adhere to institutional framework in order to fulfill the objectives of that institution. Most of the current university’s missions are designed to cultivate in students the 21st century competency skills.

**Interpreting Course Code**

Another notable and indispensable characteristic of a syllabus is the course code. Course codes are identity markers that differentiate one course from another in terms of discipline and level of study. On designing a syllabus, instructors need to be aware of the meanings of the subject code and the catalog number in order to provide content and assessments that are appropriate for students’ developmental and academic readiness. Undergraduate courses typically have the subject code and the catalog number ranging from 100 to 499. For example, the course PSYC 101 has PSYC as the subject code that represents the Psychology discipline while the catalog number, 101, shows the level of study. The first digit indicates specific level of study while the rest of the digits are defined by the different levels of course strength. Therefore, a course that starts with 1 as in PSYC 101 shows that it is a foundational course while level 2 courses start with 2 such as in PSYC 201, indicating that it is an expansive foundational course. Levels 3 and 4 courses typically require prerequisites because they require more advanced thinking skills and demonstration of in-depth knowledge.

**Universal Components of a Syllabus**

Although there is seldom a standardized syllabus format, there are, however, some major characteristics of a learner-centered syllabus. The characteristics which can be grouped into four broad categories include: contact information, institutional statements, objective information, and course policies.

**Category One: Contact information**

In this category, the first page of the syllabus starts with a boldly marked name of the institution, followed by the course title (e.g., XXX 100), course sections, semester in which the course is offered, meeting dates and time, room number, instructor’s name, e-mail address, phone number of the instructor, office address, and office hours. If there is a graduate assistant assigned to the instructor, their name and e-mail address should also be included. The information on this category should not cover more than ¼ of a standard A4 size page. The contact information is particularly helpful to first-generation college students because it provides them information about the location of their classes and ways to contact their professors at any given moment. This helps reduce stress and anxiety that students tend to experience in their first year in college.

**Category Two: Institutional statements**

At the end of contact information on an A4 size page, there are mandatory institutional statements that are cut and pasted into the syllabus. The content encompasses university’s mission statement, institutional statements about diversity and inclusion, disability services, writing center, and technology help desk. Some institutions also include statements forewarning students against plagiarism, tobacco use and alcoholism on campus. All these statements are invaluable to the entire student body because they contain policies that reiterate institutional expectations and provide information about the various services that are offered by the university to accommodate students’ needs in the areas of technology, disabilities, library services, learning, and writing centers. Universities want these statements to be included in all syllabi to ensure a wider dissemination and digestion of their message. Not all institutions have all the statements. Instructors are not advised to borrow and use statements from another university. They should design their syllabi with the institutional information that has been made available to them by the hierarchy. In many universities in the United States, professors receive emails weeks before the beginning of each semester on institutional statements that must be part of the syllabus.
Category Three: Objective Information

Objective information encompasses narrative about the course, the purpose and the rationale of the course, prerequisites and/or co-requisites courses that must be taken before or along the current course, course objectives or competencies, course materials and texts, assignments, final exam or final project, rubric, grade criteria, course calendar, and supplemental reading sources. Under objective information, the instructors explain clearly what the course is all about, why it is important for the students, why it is necessary for their chosen program, and why they should sign up for the course. One of the best ways to retain students’ interests in the course from the outset is to give them a palpable rationale as to why the course is being offered, stating persuasively how it would fulfill their program requirements and how it would contribute to their career growth and/or to the better of the society.

If there is a prerequisite course, it has to be stated in the syllabus as a prerequisite requirement. Sometimes, some courses are taken alongside one other course. If it is the case with the course that is being designed, the co-requisite should be stated in the front page.

In transformative education, there is a paradigm shift from course objectives to course competencies. Historically, syllabi that are developed from the perspective of lesson objectives focus more on what students should know by the end of the course, whereas competency-based approach to course design focuses on what students should be able to do by the end of the course. In order to effectively state and subsequently assess learning competencies and critical thinking skills, action verbs are employed to state course competencies as advocated in the Bloom’s Taxonomy graphic shown in Figure 1.

“Remember” and “Understand” are at the bottom of the pyramid of Bloom’s taxonomy because they represent static verbs and require the least amount of learning effort. Instructors should take this graph into serious consideration when developing learning competencies and assessments of a course.

In selecting the course reading material, instructors should ensure that the reading material are void of sexism, racism, ethnocentrism, colorism, ableism, ageism, xenophobia, homophobia and all other isms and phobias that affect people negatively. This is an opportunity for champions of decolonization to decolonize their curriculum making by choosing reading material that are devoid of dehumanizing and colonizing language and history. It is also an opportunity to empower students in the learning process by offering them choice readings (Sleeter, 2008), mirror and window curriculum (Style, 1988), and place-based curriculum (Preston, 2015). One of the essential information that students look for in a syllabus is the text because they want to buy it or order it online in time.

Furthermore, the syllabus contains detailed information about the course assessment process. It includes assignment descriptions, grading rubrics, submission modes, deadlines, and cut-off time after which submissions may or may not be accepted with or without a penalty. Each assignment should also include instructor’s preference for total word count, stipulated margin, font, and font size. A rubric is a scoring sheet that shows students how their work will be graded. It provides more clarity to students as to what is expected.
of them while saving time to instructors because they do not have to give detailed written feedback since it is already included in the rubric. In the syllabus, students are also given the range of scores and their equivalent grades in the rubric, known as grade criteria. For example, the grade criteria have to show in the syllabus that 94% upward in an exam is an A grade and that 59% downward is F. Varying assignments or exam formats is also important because it allows students who are not good test-takers in a proctored room to excel in other assignments done in stress-free settings.

Another vital aspect of the objective information in a syllabus is the reading calendar. There must be a reading or video/audio linked to each class meeting date. For instance, if a class meets on Monday and Wednesday each week, the syllabus should indicate the reading tasks assigned for each day. Students have to be informed on the first day of class that the readings are meant for them to read before coming to class. Each digital reading title should indicate in parenthesis where and how it could be accessed. If it is a book chapter, reference should be made about the specific book and the specific chapter including the page range.

Category Four: Miscellaneous course policies

Course policies in this category embody clarification of behavioral and attitudinal expectations, information about class attendance, late and missing assignments/exams, nature of participation in activities, and general ethics. Some degree programs assess students on professional dispositions which can include general behavior and attitude, dress code, and punctuality. In the absence of an institutional statement on plagiarism and copyright issues, an instructor may insert their own personally worded statement into the syllabus to minimize plagiarism. If the course includes field experience or fieldwork component, the information should be incorporated into the syllabus so that students can plan accordingly. Students need to be aware of how long it would take their instructor to respond to e-mails. Most instructors respond within 24 hours on weekdays. It is necessary to defer to the institutional policy with respect to instructor’s promptitude in e-mail responses.

It is worth noting that the structure of syllabus and the sequencing of the content should be given due consideration. The foregoing categories define a general logical order that a typical learner-centered syllabus should follow. Sequencing of course content in a way that promotes scaffolding from the simplest concept to the most complex one in the learning process is very prior to the first class of the semester. Ideally, a syllabus should be made available to students a week before important. However, owing to the limited scope of this paper, content sequencing techniques will be a separate paper.

Syllabus Accessibility

Once the syllabus is fully designed and meticulously edited to ensure clarity, the instructor should make it available to the students at least twenty-four hours classes begin so that they will have ample time to purchase and ship the course texts and other learning tools before the start of the semester. According to a survey conducted by CampusBooks.com (2016), 67% of the students surveyed said they purchase used textbooks while 55% said they rent textbooks for their courses each semester. Other research institutions have conducted similar research. According to Kelly (2019), 58% of students who responded to a survey on students’ habits toward purchasing textbooks said they buy at least one textbook on Amazon. Only 51% said they buy books at their campus bookstore. In the survey, one student said, “School Bookstore typically charges 3x as much as ordering from Amazon or another site.” Therefore, it is imperative to share the syllabus days or weeks before the start of the semester or at the very least, provide information about the text weeks earlier.

Learning Management Systems (LMS) are the platforms that instructors in developed countries use to share a lot of information with students. Many developing countries cannot afford the cost of these learning management systems (LMS) like Blackboard and Canvas which are designed for schools, colleges, and universities. LMS are used for e-learning as well as to post all relevant information about a course including syllabi, assignments, rubrics, assignment submission portal, attendance tracking, and grade postings. In countries where universities cannot afford these learning management systems, there are other options that faculty members can use to communicate with students for free. There are moodle.com, Google Classroom, Whatsapp, Telegram, etc. A hard copy of a syllabus should be made available to students who do not have access to the internet. The first day of class should also be used to read through the syllabus with the students. Considering that the instructor’s role in the classroom is to help students maximize learning outcomes, going over the syllabus thoroughly helps clarify nebulous
areas in the syllabus and set the students up for success right from the beginning of the semester. While what a student discovers in the course of learning is more important than what they cover in class, it is crucial for students to have full access to what is being covered so as to plan ahead of each class session.

**Uses of a syllabus**

A well-designed syllabus facilitates teaching and learning. It shows a clear pattern of teaching and learning activities built into the course (Slattery & Carlson, 2016). Considering the importance of a syllabus and its ubiquity in higher education in developed countries, it is rather ironic that there is limited research about it. According to Littlefield (1999) a syllabus has several functions:

- It facilitates teaching because it enables teachers to plan better in advance.
- It serves as a binding document between the students and the instructor.
- It sets the tone of the course for the entire semester.
- It helps students plan their learning carefully.
- It ensures smooth and effective continuity of the course content from the originator of the course to subsequent instructors given that there is always a master syllabus that is safely kept by the department chair. Instructors teaching an old course for the first time use the master syllabus as a starting point in developing their own syllabus. They have to build from the previous instructor’s syllabus otherwise the original goal of the course could very easily be misconstrued and bastardized overtime.
- It serves as an artifact for promotion, tenure, and for job applications for instructors.
- It can also be argued that a syllabus minimizes students’ unnecessary outreach to the instructor since effective syllabi pre-emptively answer students’ questions.

Course expectations set forth in the syllabus and explained by the instructor on the first day of class can affect students’ interest in the course on the first day of the class. Transformative educators do not scare students away from their course; they attract them to their course and work with them to address any individual concern about the course. In addition, using the syllabus as a contractual document between the student and the instructor is very important because students have the propensity to feel cheated in their grades when they did not do well in a test. To avoid any possible lawsuit from students, some universities even require students to read and sign the syllabus on the first day of the course so that students cannot successfully challenge in a court of law any aspect of the signed syllabus in due course.

The syllabus can serve as an artifact in a job application portfolio. It is common for faculty applying for a college/university teaching position to carry along to interviews their portfolio which, among many other things, includes syllabi of the different courses they have taught. It is also a standard practice for faculty seeking tenure and promotion to include copies of syllabi of all the courses they have designed and/or taught. When evaluating professors’ teaching skills, evaluators (who most often are peers) are expected to review the faculty’s syllabi and observe them teach. Thus, an instructor’s teaching philosophy can be easily gauged through a review of the syllabus than through a one-session teaching observation.

**Backward design of a syllabus**

According to Wiggins and McTighe (2005) backward design entails developing a syllabus beginning with course goals and working backward to lay bare what learners need to know in order to meet them as opposed to the traditional method which focuses on the coverage of topics and contents recommended by the government or accreditation bodies. While instructors may erroneously want to begin a syllabus design with content and technical details, a syllabus creation should begin with the goals, objectives and competencies, stating the skills students should be able to demonstrate by the end of the course. In the backward design process, instructors ensure that attention is paid not only to content coverage, but also to the purpose, usefulness, and the impact of the course on students. The following preliminary questions are crucial in the syllabus creation process:

1. What is important for students to learn?
2. How will the instructor and their students see learning happening?
3. What will the instructor and the students need to do for learning to take place?

With a backward design, instructors are able to align their course goals and learning objectives with teaching activities as well as with course assessments. In this regard, students are consistently familiar with the course content and its goals. There are three stages
of backward design:

**Stage One: Desired Outcomes:** At this stage, the instructor starts the syllabus design with a deep reflection on the goals, objectives/competencies of the course by pondering over questions such as: What is important for learners to know and do by the end of the course? What knowledge or skills are students expected to acquire by the end of the course? What standards are supposed to be met? What are the transfer competencies that are expected? When the course competencies have been conceptualized and stated in active verbs, the instructor then reflects profoundly on the different measurable evidence which is in Stage Two of this process.

**Stage Two: Acceptable evidence for instructors and students:** This stage is about assessments and evaluations. How does an instructor assess students understanding and progress to determine whether or not learning occurred? What will an instructor consider as acceptable proficiency of the learning outcomes? The instructor comes up with different assessment tools that effectively measure the learning outcomes of Stage One.

**Stage Three: Learning activities:** What sorts of learning material and activities are put in place that will result in the evidence of desired outcomes being met?

As shown in these three stages, instead of starting a course curriculum with dense content of what students should learn, the instructor commences with what they envision as desired outcomes and walk backward to the content which embodies the learning activities. In planning the course, some of the critical questions that guide an instructor in the choice of learning material and activities are: What learning material is suitable for achieving the course objectives/competencies? How will this material be sequenced to maximize knowledge acquisition? What pedagogic activities will accelerate knowledge gain, knowledge transfer and knowledge application in real-world contexts? Careful responses to the foregoing questions would ensure an effective planning and development of the syllabus.

**Conclusion**

Using a backward design to develop an effective syllabus that employs different pedagogic approaches to impart knowledge in students should be the priority instead of focusing on exposing them to large quantity of contents through the traditional lecture method that they can barely retain (Cooper et al., 2016). Miller (1927) defined lecture method as “... that mysterious process by means of which the contents of the notebook of the professor are transferred through the instrument of the fountain pen to the note-book of the student without passing through the mind of either.” In employing transformative learning theories to design a syllabus and teach 21st century skills, the instructional focus shifts from teaching objective facts to teaching core competencies of the course, critical thinking skills, problem-solving skills, information and computer literacy, collaboration, and creativity. A syllabus should promote heuristic pedagogy so that students can develop more confidence in their abilities to handle complex problems.

Effective teaching is preceded by constructive learner-centered course planning that revolves around syllabus design. A 21st century syllabus that is aimed at maximizing learning outcomes should carry an overtone of learner-centered pedagogy throughout the syllabus. Reading materials, assignments, and instructional strategies laid out in any syllabus should highlight twenty-first century skills as presented earlier. Some of these skills may not be woven into the core content of the course, rather they may occur mostly during the content delivery process, that is during the teaching of the course. A course may emphasize critical thinking and collaboration skills in their syllabus development by showing what sorts of learning, teaching, and assessment activities may help accomplish the two skills. The physics instructor who is conscious of the 21st century skills that are being reiterated in the university may redesign the syllabus to ensure that the said skills are being covered through the curriculum or through the instruction.

Education is designed to educate; to teach what is worth knowing, but that is not known.

It is worth imagining what is worth knowing in community health today that is not known by citizens and the possible impact it has on their health, in particular, and their lives, in general. A carefully crafted learner-centered syllabus that demonstrates the transformative potentials of education is what all college instructors should strive for in the courses they teach. Education is about transformation and that transformation entails changing frames of reference such as habits of minds, perspectives, and mindsets during an educational process to be more inclusive, reflective so as to transfer knowledge and apply it in other real-life contexts. A syllabus that promotes deeper learning and knowledge transfer maximizes learning outcomes.
References


Author

Michael T. Ndemanu, Ph.D. (mtndemanu@bsu.edu) is an Associate Professor in the Department of Educational Studies at Ball State University, Muncie, Indiana, USA.