# Teacher Involvement in Curricula Design in Higher Education

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Abstract

There is need to create increasing awareness about the existing gap in the role of faculty as curriculum designers, and to explore appropriate strategies to equip them for the role. This paper reveals that some of the key factors that hinder the faculty from being proficient in curriculum design are: (1) beliefs and values of faculty; (2) gaps in use of Information Technology; (3) lack of design expertise; (4) lack of collaboration among faculty; and (5) inadequate support. The paper suggests that faculty must imbibe the right attitudes; seek opportunities to develop their curriculum design potentials; integrate technologies in more productive ways; and practice continuous collaboration in curriculum design. In addition, the paper stresses the importance of higher education leadership providing faculty with necessary support in curriculum design; and the imperative for faculty to pay more attention to obtaining feedback from students, and alumni about the relevance of their learning to their work.

*Keywords*:  curriculum design, faculty, feedback, proficient, significant learning

**Introduction**

Education is exceptionally important for human development and for the purpose of empowering the individual with skills and knowledge necessary to forge ahead in life. The role of higher education for the twenty-first Century is:

> to enhance their (students') capacity to live with uncertainty, to change and bring about change, and to address social needs and to promote solidarity and equity; should preserve and exercise scientific rigor and originality, in a spirit of impartiality, as a basic prerequisite for attaining and sustaining an indispensable level of quality; and should place students at the center of their concerns, within a lifelong perspective, so as to allow their full integration into the global knowledge society of the coming century (UNESCO, 1998, para. 13) .

"An analysis of the scholarship around graduate attributes demonstrates four broad conceptions of their purpose: employability; lifelong learning; preparing for an uncertain future; and acting for the social good" (Bosanquet, Winchester-Seeto, & Rowe, 2010, p. 105).

The challenging role of education, coupled with a host of other socio-economic factors such as declining educational outcomes; increasing student enrolment; changing student population; increasing emphasis on assessment and accountability; emerging teaching tools; inadequate public sector funding for education, competitive and changing job requirements have led to continuous curriculum reform in higher education. "This has led to refocusing the role of faculty from transmitters of disciplinary content to facilitators of learner-centered instruction and a rethinking of how to develop and prepare the faculty for the new roles" (Ziegenfuss & Lawler, 2008,  p. 152).  Ziegenfuss and Lawler argued that as faculty roles change, additional responsibilities such as instructional design, technology integration, and student learning assessment are added to traditional faculty responsibilities of teaching and conducting research. These reforms continue to pose considerable challenges to the faculty who are responsible for curricula design and implementation in higher education.

For teaching to more effectively promote learning, instructors need to gain control over the organization and sequencing of the learning, not just the content: Learner-centered instruction places more importance on the fact that faculty must become designers of instruction, not just teachers (Weimer, 2013). Lack of design expertise affects the enacted design process and eventually the quality of the designed curriculum. "Changing faculty roles related to designing instruction also alter the dynamics of traditional higher education curriculum design and call for the investigation of new models and academic development perspectives" (Ziegenfuss & Lawler, 2008, p. 152). "Successful implementation of reforms depends on teachers' ownership of, and their knowledge about reform ideas: since they are the ones that put reforms into practice" (Huizinga, Handelzalts, Nieveen & Voogt, 2014, p. 33).

Effective teaching depends on effective curriculum design and implementation to ensure significant learning as shown in Table 1. Badly designed programs, courses, or topics and poor implementation leave students ill-equipped. "Students are obviously most likely to learn what they are taught: A well-designed, relevant, coherent curriculum which is consistently taught, with a variety of suitable learning resources is therefore critically important" (Faye et al., 2003, p. 14). Students' learning experience is a function of the degree to which the tasks of teaching are carried out.

In addition, Fink (2003) contends that effective course design can facilitate the creation of significant learning experiences that have potential for reigniting interest for teaching among faculty. If we have or can develop a language and a conceptual framework for identifying the multiple ways in which learning can be significant, "then teachers can decide which of

various kinds of significant learning they want to support and promote in a given course or learning experience" (Fink, 2003, p. 1). The taxonomy of significant learning is not hierarchical but rather relational and interactive as shown in Figure 1 (Fink, 2003).
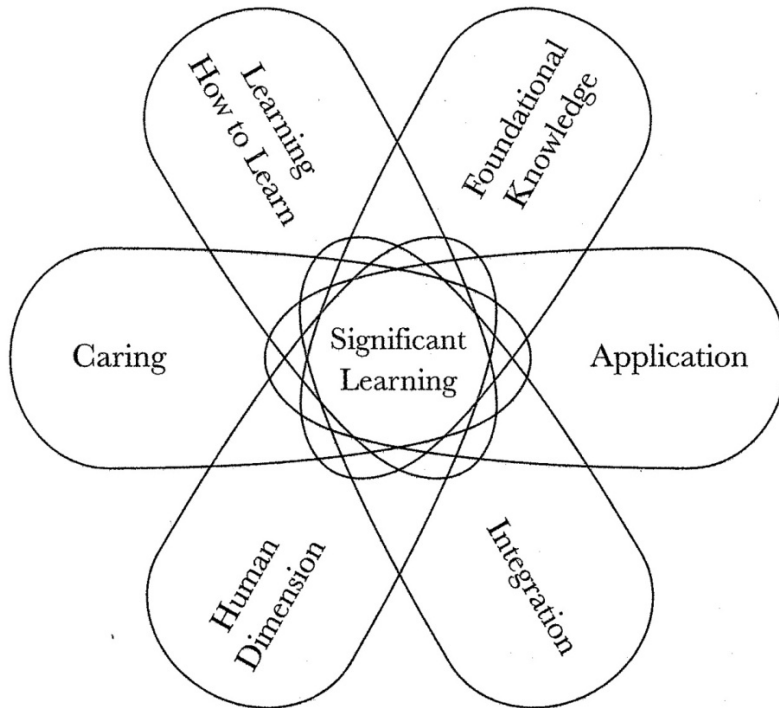


*Figure 1*. Interactive Nature of Significant Learning (Fink, 2003)

The purpose of this paper is to create increasing awareness of the existing gap in the role of faculty members as curriculum designers, towards addressing those factors and exploring appropriate strategies to equip them for the role (Ziegenfuss, 2007) so as to ensure that students have significant learning experiences (Fink, 2003). The question therefore is; what are the key factors that are affecting faculty's ability to be proficient in curriculum design either at the program or course level and how can they be addressed?

## Literature Review

### Definition of Curriculum

Curriculum is a complex concept, which has been defined in various ways embodying learners' acquisition of knowledge and development. Stark and Lattuca (2009) defined curriculum as an academic plan comprising eight elements: purpose, content, sequence, learners, instructional processes, instructional materials, evaluation and adjustment to increase learning. This definition will be adopted for the purpose of this paper.

> Hersom (1972) argued that awareness of the direct relationship between now and the future focuses attention on the importance of selecting worthwhile curriculum goals. Though there is little agreement on what those goals ought to be, there is agreement about; first, recognizing the uniqueness of each individual; second, about the need for

technology and government to serve mankind; and third,  on the need for partnership of many segments of the society in developing the curriculum (p. 44).

Based on Joseph Schwab's (1973) description of the process of curriculum development as unsystematic, uneasy, pragmatic, and uncertain; Hersom (1972, p. 14) argued that the following three questions shape a curriculum uniquely; "why do we choose one set of goals for learners rather than another set of goals; why do we advocate certain learning processes and not others; why do we provide certain settings, and environments for learning rather than others?" She stated that as the answers to these questions change, so does curriculum change.

## Curriculum Development Theorizing

"Curriculum development is a collective and intentional process or activity directed at beneficial curriculum change. How it takes place is always an issue, for there is no one right way to go about it" (March & Wills, 1999, p. 149).  Some curriculum development approaches are: First, Tyler's (2013) deductive rational-linear approach which argued that curriculum development should focus on addressing the objectives; developing learning experiences that help the learner to achieve the objectives; organizing learning experiences and evaluation of objectives. Second,  Taba's (1962) inductive grass-roots approach (advocated for teachers to design the curriculum rather than higher authorities) consists of diagnosis of needs; formulation of objectives; selection of content;  organization of content;  selection of learning experiences; organization of learning experience; what objectives to evaluate and how. Third, Eisner's (1984) five basic orientations to the aims and content of curriculum, namely: development of cognitive process; academic rationalism (fostering the intellectual growth of students in subjects that matter most); personal relevance; social adaptation, and curriculum of technology (relating means to an end).

However, Egan (1997) and other proponents of the theory of Imaginative Education (IE), have called for planning of teaching to engage students' imagination. They argued that curriculum ought to be developed from principles derived from the under-listed five distinctive kinds of understanding of the learner: somantic (prelinguistic), mythic (oral language), romantic (written language), philosophic (theoretic use of language) and ironic (reflexive use of language). According to proponents of IE, the main role for teachers in IE is to design learning the way the human mind develops and understands. However, there is a dearth of investigation as to how IE might be used in colleges and universities by faculty and students to allow the "unusual and effective to flourish" (Kleine & Metzker, 2012, p. 746).

## Perspectives on Curriculum

UNESCO (n. d.) defines the four perspectives of curriculum as: intended curriculum (the vision of the society as regards what is expected to be taught and learned stated in written or official documents); implemented curriculum (what the teachers teach); achieved curriculum (what learners actually learnt), and hidden curriculum (the unexpected impact of a curriculum when implemented).

## Curriculum Models in Higher Education

Curriculum models in higher education are often described as: (1) product model (driven by objectives and outcomes) or process model (driven by continuous development along with outcomes perceived as desirable process); (2) subject-centered or learner-centered curriculum. According to  Gosper and Ifenthaler (2014) subject-centered curriculum is similar to the product model curriculum; while learner-centered curriculum is similar to the process model in its humanist approach, which stresses the personal, subjective and aesthetic nature of the curriculum. Ziegenfuss and Lawler (2008) argued "the learner-

centered curriculum allows the student more participation in his/her own studies, since the learner is the focus and not the curriculum contents or learning goals" (p. 154).

## Curriculum Development versus Curriculum Design Process

The curriculum development process encompasses the design and development of integrated plans for learning; implementation and evaluation of the plans; as well as students' learning outcomes, to ensure integration of curriculum contents that will lead to significant learning experiences for the learner. On the other hand, curriculum design is the process of translating broad statements of intent into specific plans and actions, so as to ensure as much alignment as possible between the planned curriculum, the implemented curriculum, and the achieved curriculum.

> The curriculum design process at course level sets the context for topic design, and topic design, sets the context for each learning experience. Topics need to be designed to come together in structured combinations to form coherent major and minor sequences and courses. Parts of the process especially at the course and topic levels overlap and ideally should occur interactively with course design informing and influencing topic design and topic design informing and influencing course design (Flinders University, 2013, para. 2).

According to Thijs and Van den Akker (as cited in Huizinga et al., 2014) "curriculum materials such as lesson series, represent the operationalized curriculum reform and, therefore, play an important role during curriculum design reformations" (p. 35).

## Key Factors Affecting Faculty's Proficiency in Curriculum Design

### Teacher's beliefs and values

Fraser and Bosanquent (2006) in their phenomenographic study in Australia reported that four different categories of meaning emerged when academics were asked about their understanding of the meaning of curriculum. They concluded that conceptions held by practicing academics were influenced by the epistemological and philosophical beliefs of individuals. Also, Ziegenfuss and Lawler (2008) based on findings from their study to understand what an instructor actually does when designing and developing an academic course, concluded that "one's teaching and learning belief systems have an influence on the success of a course design" (p. 154). If instructors feel that they are constrained by departmental, institutional and accreditation guidelines and standards, then they will not be able to fully embrace the process of change and re-think the planning and teaching processes (Ziegenfuss & Lawler, 2008).

Cotton (2006) explored the beliefs of three geography teachers teaching controversial issues in United Kingdom secondary schools, who felt they should avoid influencing students' attitudes. The researcher concluded that unless curriculum developers take account of teachers' beliefs in designing new curriculum materials, those materials are unlikely to be implemented in their intended format. Teachers are likely to plan and implement practices with technologies that reflect their beliefs about teaching and learning (Drenoyianni & Selwood, 1998). Teachers' beliefs have implications on how technologies are used in the classroom; as an add-on to established curriculum practices, or as a tool that effects change in their practice. (Prestridge, 2007).

### Inappropriate use of technologies in design and implementation

Information and Communication Technologies (ICT) have become powerful tools for learning in the hands of learners and educators around the world. Both learning and teaching are qualitatively different with regard to the use of advanced ICTs (UNESCO, n. d). Gosper and Ifenthaler (2014) stressed the role of technologies in cognitive development and in providing the leverage to explore and implement new approaches.  However, they stated that the challenge is in the faculty, knowing which technology to use and for what purpose since aims, outcomes, learning activities and assessment strategies must be aligned in a curriculum.  Maor (as cited in Gosper & Ifenthaler, 2014, p. 107) suggests that there is a tension between technology and pedagogy, with academics often unsure of how to effectively design and implement new approaches. Oblinger and Oblinger (2005) argued that it is not technology that makes learning engaging, but the learning activity enabled by technology. Technology must be relevant and interactive to the coursework. According to Oblinger and Oblinger (2005) the question should be what emerging technologies might have a significant impact on educational productivity and student success?

> When time is scarce and resources for innovation and support hard to come by, it is easy to default to making decisions based on one's own conceptions of teaching, the availability of technologies and comfort with their use. The inherent danger in this is that it can be self-limiting, leading to impoverished curriculum designs that fail to capture and retain the imagination of students (Gosper & Ifenthaler, 2014, p. 106).

Ellis and Goodyear (as stated in Gosper & Ifenthaler, 2014, p. 104) suggest that "when teachers do not focus on the development of student understanding and have poor conceptions of learning technologies, they tend to use e-learning as a way of delivering information, bolting it on to course design in an unreflective way". Also, according to Paas, Renkl, and Sweller (2003) if learning activities and the technologies in use engender processing requirements that are not within the capabilities of the learner, then an ineffective or extraneous cognitive load can be imposed, with the consequence of poor learning.

Using the example of Bower, Hedberg and Kuswar's use of Web 2.0 learning design to incorporate revised 'Blooms taxonomy of learning' as a tool to analyze and map aims and outcomes, against knowledge and processes, Gosper and Ifenthaler (2014) argued that "teachers' lack understanding of how to use technologies to appropriately design activities and assessments tasks for higher order learning" (p. 8). They noted that although intended learning outcomes may be well articulated in curriculum documents, the activities and technologies used to facilitate learning and assessment are not necessarily well integrated.

**Gaps in curriculum design expertise**

Teachers lacked the knowledge and skills to enact the design processes (Eggleston 1980, Walker 1975). Bakah et al.; Handelzalts; Havnes; Vescio et al. (as cited in Huizinga et al., 2014) argued that despite the advantages of designing curricula in teacher teams, further referred to as teacher design teams (TDTs), teachers in TDTs' often lack design expertise. A lack of design expertise affects the enacted design process and eventually the quality of the designed curricula (Hardre et al. 2006).

> Design expertise consists of the knowledge and skills to enact a design process. It prescribes analysis, design, development, and implementation and evaluation skills. However, teachers are not only expected to be able to enact the design process, but as Schwab (1973) in Ben-Peretz (1990) points out, they are also required to have substantial knowledge and skills, such as subject matter knowledge and insights into the learners, the teachers, and the context (Huizinga et al., 2014, p. 35).

Based on previous studies in the field, Huizinga et al. (2014, p. 36) identified the following six types of knowledge and skills as relevant for teachers, for enacting design processes; knowledge and skills to formulate a problem statement; idea generation skills; systematic curriculum design skills; formative and summative evaluation skills plus curricular decisions-making skills; and implementation management skills.

**Lack of collaboration among faculty**

Several studies (Craig, 2009; Crow & Pounder, 2000; Parke & Coble, 1997) argued that collaboration in teams during the design process will likely reduce knowledge and skill-related limitations. According to Handelzalts; Havnes; Peterat; Walker, (as cited in Huizinga et al., 2014, p. 34) "collaboration creates opportunities to exchange experiences and expertise". Also, a shared operational understanding of the curriculum reform and its implications might help to create ownership, and a more realistic implementation strategy (Elizondo-Montemayor et al. 2008).

Ziegenfuss and Lawler (2008) conducted a qualitative research to understand the effect of a collaborative process on both the faculty's efficiency in course design; and enhanced student learning, using Fink's (2003) course design model. According to Ziegenfuss and Lawler, as faculty roles change, additional responsibilities such as instructional design, technology integration, and student learning assessment are added to traditional faculty responsibilities of teaching and conducting research. This results in faculty facing decisions and issues that might benefit from collaboration" (Ziegenfuss & Lawler, 2008). According to Ziegenfuss and Lawler, findings from the study indicate, "the gap between the planning and implementation warrants a more continuous collaboration plan than is normally pursued in postsecondary support environments" (Ziegenfuss & Lawler, 2008, p. 158). Therefore, there is need for continuous collaboration between instructional design specialists and the instructor in course design, implementation, and outcome (Ziegenfuss & Lawler, 2008).

**Inadequate support**

"Providing support to enhance teachers' design expertise is essential, since most teachers are novice designers" (Huizinga et., 2014, p. 33). In an explorative study, Huizinga, et al. (2014), investigated teachers' need for support to enhance teachers' curriculum design expertise from two perspectives; the knowledge and skills-related problems, teachers experience while designing indicate which support is needed, and support offered to teacher design teams (TDT's) also provides information about required support for TDTs while designing.

Based on their findings, they suggested that; first, to enhance the quality of the curriculum design process, support should be offered just-in-time as an integrated part of the design process to enhance teachers' design expertise; and second, support should focus on developing teachers' curriculum design expertise, pedagogical content knowledge, curricular consistency expertise; and, third, templates, curricular frameworks and evaluation guidelines are essential tools to support teachers in the design of quality lesson series.

## Discussion

This paper has reviewed five key factors that inhibit faculty from being proficient in course design: influence of their beliefs and values; inappropriate use of technologies in design and implementation; lack of design expertise; lack of collaboration among faculty; and inadequate support. The following recommendations emanate from the review.

**Change in Faculty's Beliefs and Values**

A key feature in the impact of any curriculum is how it is implemented, and this will be influenced by how educators view the concept of curriculum (Fraser & Bosanquet, 2006). Teachers are likely to plan and implement practices with technologies that reflect their beliefs about teaching and learning (Drenoyianni & Selwood, 1998). Teacher beliefs have been identified as a 'second-order' barrier to the integration of ICT in teaching and learning (Ertmer, 2005). "First-order barriers are extrinsic to the teacher and include lack of resources, time, access and technical support" (Prestridge, 2012, p. 1). Faculty must imbibe the right attitudes and seek opportunities to develop their potentials for curriculum design in their respective disciplines, in ways that take cognizance of the numerous demands on education as a way to face, understand, and evaluate the complexities of the incessantly changing world. Creativity, critical thinking, problem solving, communication and collaboration, initiative and self- direction, social and cross-cultural skills, leadership, and responsibility are among the most critical elements a contemporary curriculum should embrace (Gosper & Ifenthaler, 2014).

## Professional and Self-Development of Faculty

Most teachers have limited prior experience in curriculum design and struggle with conducting curriculum design processes. Fullan (as cited in Lopes & Fernandes De Macedo, 2009) argued that different studies (Ball & Cohen, 1999; Oakes, Quartz, Ryan, & Lipton, 1999; Stigler & Hiebert, 1999) have shown how reforms have neglected the continued training of teachers, an aspect that has been found essential for sustaining curriculum changes. Teachers' development efforts should be continuous and should be encouraged by higher education leadership. There is need for higher education to invest more in faculty training. Faculty must be flexible enough to adopt emerging ways of teaching that will enhance their curriculum design and implementation expertise. In addition, faculty should develop themselves through reading relevant scholarly journals, participating in educational improvement workshops, conferences, and seminars that will help to improve their curriculum design expertise in key areas: subject matter knowledge, pedagogical content knowledge, and design expertise.

## Appropriate Integration of Technology in Course Design

There is the need to ensure that the aims, activities, and technologies are effectively aligned in a curriculum design. The problem with the use of information technology is mainly twofold. On one hand, in most cases teachers do not pay attention to the capability of learners in incorporating the type of technology to use. On the other, in many cases, teachers just deploy the type of technology they understand best, irrespective of how effective the technological tool is in teaching the particular topic. The faculty needs to be trained in the use of technological tools. "Furthermore, teacher designers are expected to determine whether the use of ICT is beneficial for offering the subject matter and to select and integrate appropriate ICT-based materials in the lesson series they are designing" (Huizinga et al, 2014, p.38). In addition, faculty should ensure that students have a good understanding of the technology type to be used in facilitating the subject matter, so as to bring about significant student learning.

## Encouraging Faculty's Collaboration

Collaboration among faculty should be encouraged and leadership in higher education must provide the necessary support. Learning Communities should be created where faculty members, study, discuss, practice, critique and learn from one another. Higher Education leadership should make room for curriculum development specialists that can collaborate with teachers throughout their period of curriculum design and implementation. Ziegenfuss and Lawler (2008), conducted a qualitative research to understand the potential that a collaborative process would have for both faculty efficiencies in course design and enhanced

student learning, using Fink's (2003) course development process. Ziegenfuss and Lawler (2008) reported that the collaborative process created opportunities for discussions about one's changing beliefs and the importance of decision making when designing a course. According to Ziegenfuss and Lawler (2008) the gap between the planning and implementation of course design warrants a more continuous collaboration plan than is normally pursued in postsecondary support environments.

> Such a consultation model is much more time intensive than a "help and drop" or event model of collaboration but we have found that it is this continued relationship that has resulted in a richer and more rewarding course design and academic development experience (Ziegenfuss & Lawler, 2008, p. 159).

**Leadership Support in Curriculum Design**

It is important that teachers are intensely supported by close-to-instruction interaction with other teachers and curriculum design experts, and that higher education leadership creates sustainable learning opportunities for faculty. In addition, considerations must be made to include the prior experiences of the faculty when planning curriculum design and implementation process so as to provide adequate support for the less-experienced faculty.

Huizinga et all, (2014) distinguished two strategies for supporting  teacher design teams (TDTs): first, support, which is part of the team's design process, is offered just-in time and is context specific; and support in the form of specific workshops or training sessions to foster teachers' subject matter knowledge, pedagogical content knowledge or curriculum design expertise.  Lumpe (2007) (as cited in Huizinga et. al., 2014, p.39), recommended organizing workshops and specific training sessions as an integral part of just-in-time support. Nieveen et al. (2005) (as cited in Huizinga et.al., 2014, p. 39) suggested facilitators offering pro-active support (help to guide the team during the design process to ensure that teachers do not skip important design activities), and re-active-support (following the team's enacted design process to react on the decisions made) so as to ensure that all important design activities are enacted.

Based on findings from their cross sectional qualitative study of teachers and facilitators on the needs and support for TDTs to develop design expertise required to design lesson series for interdisciplinary courses, Huizinga et.al. (2014)  provided three broad guidelines for supporting TDTs': first, support should be offered just-in-time as an integrated part of the design process to enhance teachers' design expertise; second, support should focus on developing teachers' curriculum design expertise, pedagogical content knowledge and curricular consistency expertise; and third, templates, curricular frameworks and evaluation guidelines are essential tools to support teachers in the design of quality lesson series.

However, Huizinga et.al. (2014) argued that designing lesson series is a medium complex design tasks and that for more complex design tasks, such as designing a complete new curriculum, support to foster teachers' design expertise might be different.  "How to support teachers' is less clear, or as Nieveen et al. (2005) indicated, there is no single best way in the innovation process" (Huizinga et.al., 2014, p. 38).

**Integrated Course Design**

Faculty should be trained to adopt a systematic learning-center approach in course design instead of the easier list of topic approach many teachers often use, which according to Fink (2003), does not adequately contribute to students' significant learning beyond content knowledge. Faculty must be trained to design courses in a way that will provide the learner with critical thinking and creative skills, ability to apply learning to solve real life problems, and to change students' value systems positively. The content language for an academic

subject should be exhaustive in its inclusion of all possible types of content (Porter, 2004). According to Baron; Battersby; Clanchy and Ballard; Kanpol, studies (as cited in Karavas-Doukas, 1995, p. 53), "learning outcomes focus on what students are expected to know and be able to do in the context of a field of study, and are designed to be assessable, transferable, and relevant to learners' lives as workers and citizens in a diverse world".

Fink's (2003) Taxonomy of Significant Learning (Figure 2), which incorporates Bloom's (1956) Taxonomy of Educational Learning, consisting of cognitive (knowledge), affective (attitude or self), and psychomotor (skills) is a useful guide for an integrated curriculum design. According to Fink (2003), integrated approach to curriculum design, involves five major steps, consisting of: (i) identifying situational factors; (ii) establishing learning goals; (iii) designing feedback and assessment; (iv) designing teaching and learning activities; and (v) integrating the four previous steps. What stand out in Fink's (2003) model are: his focus on the identification and reflection of situational factors at the beginning of the course design process, integration of the design processes, and application of course contents to self and society.
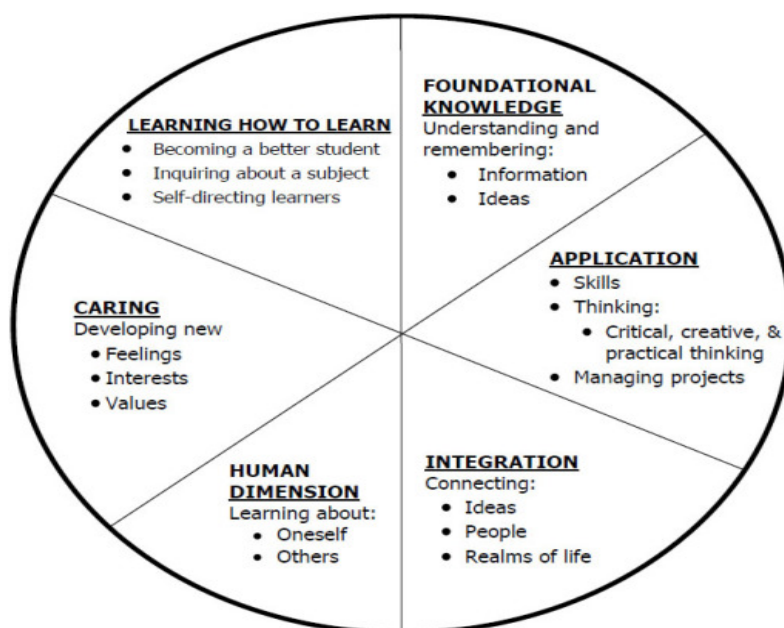


*Figure 2*. Taxonomy of Significant Learning (Fink, 2003).

**Evaluation and Student Assessment**

In addition, evaluation and student assessment are integral parts of beneficial curriculum change. For students' assessments, Fink (2003) suggests designing an educative assessment procedure, which will make students to demonstrate if they have achieved the learning goals. According to Fink (2003) the procedure contains a set of feedback and assessment procedures namely; (i) forward looking assessment to determine whether students are ready for some future activity after the current period of learning; (ii) self-assessment by learners; (iii) clearly defined criteria and standards for assessment; and (iv) fidelity feedback. According to Fink (2003), most traditional assessments are "audit-ive" and backward looking (they determine whether students learn correctly rather than helping them to learn).

> Forward-looking assessment incorporates exercises, questions, and/or problems that create a real-life context for a given issue, problem, or decision to be addressed. To construct this kind of question or problem, the teacher has to "look forward," beyond

the time when the course is over, and ask: "In what kind of situation do I expect students to need, or to be able to use this knowledge?" Then, create a question or problem that replicates this real-life context as closely as possible (Fink, 2003, p. 13)

## Student and Alumni Feedback

In addition to improving pedagogy, faculty must increasingly investigate the students' perceptions to improve student-learning outcomes. Faculty must be able to gain insight into where learners have difficulty in learning. This will help to ascertain if the difficulty is due to ineffective course design, implementation or any other factor.[1]  Faculty should design better ways to obtain appropriate feedback from their students and also from alumni about the relevance of their learning to their work.

## Limitations of Review

This review focused only on five key factors affecting faculty's ability to be proficient in curriculum design. There are other factors that influence faculty's curriculum design. In addition, this study relies on secondary information and not directly on the opinion of the faculty and students. Further studies that involve faculty and learners' as participants, are needed to investigate the effects of other contributing factors, such as; learners' perceptions about specific course designs; the learning environment constraints and scheduling; and other institutional factors, that can influence the outcomes of a course design (Ziegenfuss & Lawler, 2008).

## Conclusions and Future Study

This paper suggests that faculty should move away from inhibiting beliefs and values, and to imbibe attitudes that will foster students learning. Faculty must constantly seek to update their knowledge and skills in diverse areas that will improve their curriculum design expertise in their respective disciplines. Faculty must have proper understanding of how to integrate the technologies they choose to facilitate in curriculum design in authentic learning to bring about students' significant learning experience. Faculty must take cognizance of the numerous demands on education as a way to face, understand, and evaluate the complexities in the incessantly changing world and address real world-problems in their curriculum design to empower learners. In addition, there is need for faculty's continual collaboration in course design so as to reduce individual's faculty's knowledge and skill limitations. There is growing agreement that in order for academic development to be successful, there must be a continuation of the learning beyond the initial workshop or development opportunity (Ziegenfuss & Lawler, 2008, p.159). Though, there is need for faculty to consider varying participants' perspectives in collaboration, to relinquish a portion of course control to a collaborator, and faculty's interests to share responsibilities during the design and implementation phases may differ, these should not act as deterrents to pursuing collaborative relationships (Ziegenfuss & Lawler, 2008). In addition, higher education leadership should provide necessary support, including a pool of interdisciplinary curriculum specialists that faculty can call upon for pro-active or re-active support (Huizinga et.al., 2014) when necessary.

UNESCO (1998) emphasized the role of Higher Education in empowering learners for lifelong learning and with abilities to bring about change in the society; to achieve a set of underlying values in an organizational context and to develop students' intellectual abilities and attitudes necessary for technological progress in the society.

> The aim of education ought to be conceived of as the preparation of artists. By the term artist neither he nor I mean necessarily painters and dancers, poets and playwrights. We mean individuals who have developed the ideas, the sensibilities, the skills, and the imagination to create work that is well proportioned, skillfully

executed, and imaginative, regardless of the domain in which an individual works (Eisner, 2004, p. 4).

Employers demand work-ready graduates; and Kolb (as cited in Gosper & Ifenthaler, 2014) argued that "adult learners demand from higher education that their life and professional experiences be incorporated into their learning" (p. 117). It becomes imperative for the faculty to design and implement curriculum that will empower all learners with skills and mindsets to be useful to self and the society in the challenging dynamic world.  Towards this goal, faculty should design a better way to obtain appropriate feedback from their students and also from alumni about the relevance of their learning to their work.

Further studies are needed in two areas: to investigate other factors that influence the outcomes of a course design other than the faculty's design expertise and to investigate how students and alumni's feedback can contribute to making the faculty becoming more proficient in course design.[2] Findings from such studies will provide faculty and higher education leadership with useful data on other key factors that impact negatively on faculty's design expertise, how to address those factors, and how faculty can continually tailor curriculum design to the learning and career goals of students.

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