Introduction

Conventionally, universities are places of learning and research (Purcell, 2008); whose primary objective is to liquidate ignorance, dispel illusions and cultivate the intellect (Fahm, 1978: 1-6), and where academics are saddled with the responsibility of reflecting on and interrogating core intellectual issues in generic forms, with the aim of disseminating outcomes of such reflective and interrogative endeavours to students in the teaching-learning process. In the traditional setting, the pursuit of knowledge and learning is basically for its own sake; feeding the intellect with general principles of which reality is constituted, ways in which reality can be known, and how humans ought to comport themselves in the scheme of things to achieve social, environmental and psychological peace. But this practice is said to be slightly removed from the responsibilities of the institutions to the industrial society, where employers of labour demand the pursuit of knowledge for specific professional industrial needs; and wherein it is contended that higher education (universities) curricula is expected to be technical and trade-specific, not generic, directed at the organizational objective of profit maximization.

Consequently, there is an ever present dichotomy between industry-based conception of the goals of education and that of the educational institutions. For, how can such generic-idealistic education serve the interest of the industry? How does university education benefit the technical needs of industry? How will research which has been mobilized by the industrial society serve their benefit and motivate further sponsorship? Is the university education relevant in terms of the needs of the global market place?

Now, this refraction throws up a crisis of relevance of what is to be learnt in the schools in relation to the direct quotidian needs of industry, causing the industrial society to desperately breathe down on universities to alter curriculum to suit their specific needs. Yet, this apparently high-handed demand, from the point of view of the universities, interrogates commonsense itself, as there are so many varieties of industrial skills which on the aggregate no one academic institution can accommodate. Is it possible to teach all industrial skills in an institution, with remarkable efficiency and effectiveness as desired by industry? If not, which skill is important enough to be taught, and which one should be relegated or abandoned? Is the philosophy that underpins the establishment and running of universities completely useless in itself in the scheme of things? Should that philosophy be compromised to suit industrial needs alone? Should universities be converted to polytechnics and vocational/professional institutions? If the response to these questions is “No (ne),” would it not rather serve a better purpose if generic principles are taught and learnt in universities as is traditionally done, breeding as it were, high caliber manpower to be mediated by the products of polytechnics and other professional colleges; as well as encouraging industrial concerns to set up and maintain induction courses and in-service training schemes in their organizations to cater for their specific needs?

At the foundation of this problem is to be found the basic metaphysical divide between idealism and realism (i.e. materialism), underpinning the two broad Western conceptions of education—
the idealist-rationalist school, on the one hand and the realist-empiricist school, on the other. While the former emphasizes education for the development of the intellect, to contemplate general principles in abstract forms as that which constitute the dynamisms of the physical world, the latter emphasizes knowledge of sensible entities, of doing, and of practical matters. While the former serves the traditional purpose of university curricula, promoting a disciplinary model, the latter ultimately appears to serve the quotidian industrial needs of society and promotes a vocational/professional model (Karseth, 2006). Yet, to mediate these seeming parallel relations, there is a third school—the pragmatist school—which insists that ideas or theories, be they of the idealist-rationalist cast or of the realist-empiricist sort, must have practical relevance, furnishing the grounds for the emergence of polytechnics and other middle level manpower professional colleges.

This paper argues that the traditional idealist-realism divide on educational thinking have been and shall continue to be regarded as normal so long as education is a continuum which derives its being from the disparity in human thought. To commute one to the other—specifically, idealist to realist—to meet desperate industrial needs would be tantamount to obliterating the dual view of reality, and reducing man to a straight-jacketed robot, alienating him from his essences; it would deny the very purpose of university education itself; which is to promote human curiosity and inquisitiveness that animate civilization and development.

However, dialectically speaking, a synthesis of the idealism-realism divide exists in pragmatism from which derive compatibilism to harken to the call of industrial society for relevance of theoretical knowledge offered by the universities. This third perspective arising from the synthesis of the contending schools should illuminate the role of polytechnics and other professional and technical colleges, which engage in vocational studies that ought to serve the purpose of mediating the interest of the global marketplace. If the course offerings of the professional/vocational and technical institutions are still inadequate to serve industrial needs, compelling industry to maintain an eye on the university service in that direction, then workplaces must imbibe complementary in-service training programmes for the re-orientation of their inductees and existing work force on their core values, strategies and objectives, even as universities remain largely obligated to concentrate on their generic curricula.

The paper shall conduct an overview of the broad concern of tertiary academic institution, with a view to specifying that of the university; the two broad schools of education—idealism and realism—to clarify their features, relying more on LeoNora Cohen’s (1999) work on philosophy of education. It shall further make a case for their perennial division and suggest the relevance of polytechnics, work-study programmes as well as in-service training, to bridge the gap created by the perennial divide; and hopefully, serve the needs of industry.

**On Tertiary Academic Curriculum: The University**

Tertiary education also referred to as third stage, third level, and post-secondary education, is the educational level following the completion of a school providing secondary education (Brick, 2006). Institutions offering tertiary education include colleges, universities and polytechnics (sometimes known collectively as tertiary institutions). Generally, studies in tertiary institutions culminate in the award of certificates, diplomas, and academic degrees (Ibid). Tertiary education emphasizes theoretical knowledge and analytical skills more than the ability to memorize; thus
fulfilling the requirement of the cognitive domain of education. Hence, for a successful academic result, students must strive hard and utilize all possible resources. This includes writing down all the major points from lectures and taking advantage of all available materials (Devlin, 2009).

A university is an institution of higher learning and research which grants academic degrees in a variety of subjects, at both undergraduate and postgraduate levels. The word “university” is derived from the Latin universitas magistrorum et scholarium, which roughly means “community of teachers and scholars” (Chisholm, 1911). Originally, it referred to a degree-granting institution of learning in Western Europe, where this form of legal organisation was prevalent, and from where the institution spread around the world (Colish, 1997). One important idea in the definition of a university is the notion of academic freedom, which guarantees the right of a traveling scholar to unhindered passage across the world in the interest of education (Watson, 2005).

University students face various challenges in school as university life is a learning environment where independent study is central to education. Interaction between the students and lecturers is limited (Brick, 2006). In some countries, in some political systems, universities are controlled by political or religious authorities who forbid certain fields of study or impose certain other fields. Sometimes national or racial limitations exist in the students that can be admitted, the faculty and staff that can be employed, and the research that can be conducted (see Diamond, 1992).

Concerning curriculum, although there are various perspectives on it (Karseth, 2006: 255-284), we take it that curriculum is the set of courses, and their content, offered in school or university (Bobbitt, 1918). It is prescriptive. Accordingly, it anchors on a more general syllabus which specifies what topics must be taught, understood and to what level to achieve a particular grade or standard (Ibid). Even when Squires says that the curriculum is more than the aims and the syllabus of education (cf. Squires, 1987:155-177) and pedagogy includes more than the processes of teaching and learning, there has been a tendency in the field of pedagogy to put a stronger emphasis on learning (Young, 1998).

University curriculum is, predominantly, a disciplinary model, with the basic assumption that education “should be an apprenticeship into powerful ways of knowing: of modes of analysis, of critique and of knowledge production” (Ensor, 2004: 343). It rests upon explicit, vertical pedagogic relations between teachers and students, with the rules of selection of curriculum content and of evaluation residing in the hands of the teachers (Ibid.). It follows what Paula Ensr calls an “introjective orientation”, where academic productivity “derives from an inward focus upon the development of concepts, structures and modes of argument, rather than outwards upon the world” (Ibid.).
According to Berit Karseth the disciplinary curriculum model can be illustrated in the following way:

<table>
<thead>
<tr>
<th>Disciplinary curriculum</th>
<th>Driving force: The knowledge production itself (cognitive legitimation)</th>
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<tbody>
<tr>
<td><strong>Structure</strong></td>
<td><strong>Content</strong></td>
</tr>
<tr>
<td>The disciplines situated in departments; “subjects” offered on foundational-, intermediate- and graduate level.</td>
<td>Disciplinary knowledge; emphasis on cognitive coherence.</td>
</tr>
</tbody>
</table>

Now, following the disciplinary model, the meaning of research based teaching at the undergraduate level could be defined in the following way:

Teaching of this type of advanced knowledge has two significant characteristics. Firstly, it mainly transmits well-established knowledge within a discipline, often in the format of textbooks that condense and systematize results from previous research…. Secondly, teaching at this basic level is characterized by the fact that students’ own work mainly takes the form of exercises….Although these exercises mainly take the form of elaboration of well-established knowledge, this knowledge is anyway new to the student. The purpose of the exercises is partly that the students will master the core knowledge of the discipline, partly that they will be trained in scientific thinking and techniques (NOU 1988: 28, 89; cf. Karseth, 2006).

Consequently, “as the quotation underlines, the main educational pillar (of the university curricula) is the knowledge structure of the discipline. The central aim is the apprenticeship into conceptual structures and modes of arguments. Hence, education implies a strong emphasis on students’ acquisition of theoretical knowledge” (Karseth, 2006).

**On Idealist-Realist Philosophy of Education**

Idealism is the philosophical doctrine that has as its central tenet that ideas are the only true reality, the only thing worth knowing (Cohen, 1999). In *The Republic*, Plato discussed of two worlds: the spiritual or mental world, filled with eternal, permanent, orderly, regular, and universal forms; and the world of appearance, experienced through sight, touch, smell, taste, and sound, that is changing, imperfect, and disorderly (Cohen, 1999). This division comprises the duality of mind and body. Reacting against what he perceived as too much of a focus on the immediacy of the physical and sensory world, Plato described a utopian society in which “education to body and soul all the beauty and perfection of which they are capable” as an ideal (Cohen, 1999). Again, in his allegory of the cave, the shadows of the sensory world must be overcome with the light of reason or universal truth. To understand truth, one must pursue
knowledge and identify with the Absolute Mind. Plato also believed that the soul is fully formed prior to birth and is perfect and at one with the Universal Being. The birth process checks this perfection, so education requires bringing latent ideas (fully formed concepts) to consciousness (Cohen, 1999).

The educational objective of idealistic-realism is to discover and develop each individual’s abilities and full moral excellence in order to better serve society. The emphasis of the curriculum is subject matter of mind, attempting to develop it through self-learning, and self-realization as the center and heart of educational process (Cohen, 1999). Teaching methods focus on handling ideas through lecture, discussion, and Socratic dialogue (a method of teaching that uses questioning to help learners discover and clarify knowledge). Introspection, intuition, insight, and whole-part logic are deployed to bring to consciousness the forms or concepts which are latent in the mind (Cohen, 1999). Character is developed through acquisition of theoretical knowledge and the imitation of examples and heroes.

On Materialist-Realist Philosophy of Education

Materialist-Realists believe that there exists an external world independent of consciousness (Cohen, 1999). The ultimate reality is the world of physical objects. The focus of realism is matter, the physical, the palpable and the experiment-able type of reality. Truth is derivable from the objectivity of objects—whatever is observe-able by the senses. Aristotle was a student of Plato who broke with his mentor’s idealist philosophy, to become the father of both Materialistic Realism and the scientific method. The aim of this form of Realism is to understand objective reality through “the diligent and unsparing scrutiny of all observable data” (Cohen, 1999). Aristotle believed that to understand an object, its ultimate form had to be understood, which does not change. Aristotle also was the first to teach logic as a formal discipline in order to be able to reason about physical events and quantities (Cohen, 1999).

The Materialist-Realist philosophy of education emphasizes the subject matter of the physical world. The teacher organizes and presents learning contents systematically within a discipline, demonstrating the use of criteria in making decisions. Teaching methods focus on mastery of facts and basic skills through demonstration and recitation (Cohen, 1999). Students must also demonstrate the ability to think critically and scientifically, using observation and experimentation. Curriculum should be scientifically articulated, standardized, and distinct-disciplinary based. Character is developed through training in the rules of conduct (Cohen, 1999).

On Pragmatist Philosophy of Education

Pragmatism is a late 19th century American philosophy, derived from the teaching of Charles Sanders Peirce (1839-1914), which focuses on experience or observation as the way to know reality. Unlike the Realists and Rationalists, Pragmatists believe that reality is constantly changing and that we learn best through applying our experiences and thoughts to problems, as they arise (Cohen, 1999). The universe is dynamic and evolving, a “becoming” view of the
world. There is no absolute and unchanging truth, but rather, truth is what works. Pragmatism maintains that thought must produce action, rather than linger in the mind and lead to indecisiveness; resulting in what may be described as “subjectivist immobility.”

For the Pragmatists, like John Dewey (1859-1952), education should emphasize the subject matter of social experience. Teaching methods should focus on hands-on problem solving, experimenting, and projects. All learning is dependent on the context of place, time, and circumstance. Curriculum should bring the disciplines together to focus on solving problems in an interdisciplinary way (Cohen, 1999). “Rather than passing down organized bodies of knowledge to new learners, Pragmatists believe that learners should apply their knowledge to real situations through experimental inquiry. Character development is based on making group decisions in light of consequences. This prepares students for citizenship, daily living, and future careers” (Cohen, 1999).

**Bridging the Valley between Idealist and Realist Education through Pragmatist Education: The Compatibilist Solution**

Having considered the idealist, realist, and pragmatist philosophies of education, it is evident that the perennial parallel relation between them, where the first two emphasize theoretical knowledge, with the one appealing to the authority of the intellect, the other emphasizing the primacy of the senses; and the third insisting on practical relevance and utility of theory. But the parallel relation between the first two cannot continue without synergy, as human and social development would be needlessly polarized along those lines. A polarization of development would lead to stunted processes of wholesome human and social flourishing or sustainable existence. For a more rounded and sustainable human existence, where industry is erected and managed with sophisticated intelligence, a third school—the pragmatist -- has had to emerge dialectically to present a philosophical Compatibilist solution and bridge the valley between the mountainous idealistic realism of Plato and the materialistic realism of Aristotle. The “Compatibilist school of education” is a conciliatory theory (Unah, 1996: 61)—between the idealist and realist positions—that present the philosophical ground on which tertiary institutions like polytechnics, monotechnics and other professional colleges are founded; wherein vocational studies are undertaken in classrooms, workshops and studios in much the same way that the universities cater for the specific academic expectations of industry or the global marketplace, at the highest theoretical, analytical and principled level.

**Compatibilism** is a philosophical theory popularly associated with the metaphysical and epistemological discourses on freedom and determinism as well as internalism and externalism, respectively. Basically, it represents a point of conciliation and fusion between two opposing or parallel positions in a discourse—a doctrine in which opposed philosophical traditions find a synthesis; considering that such positions are not mutually exclusive; a point where some elements of one position can be found to “agree” or “co-exist” with some elements of the other.

In philosophy of education, this school is founded on a necessary conciliatory superstructure between metaphysical idealism and materialism; or of such necessity underpinned more
specifically in, say, mind and matter problems; or of potency and act, matter and form, in Aristotle’s hylomorphism; or of form and appearance in Plato’s doctrine of essences, et cetera. It combines elements of idealist and realist philosophies of education, bridging the valley between theory and practice, town and gown; the Ivory Tower and Industry. It combines learning at its purest form with the ultimate objective to download abstractions to suit the practical needs of industry and society. Compatibilist education involves the whole complexus of teaching-learning processes underpinned by the educational philosophies of Instrumentalism, Pragmatism, and Existentialism. In other words, these other schools of education can be collapsed into the Compatibilist position.

Although this position it not new in practice, as polytechnics and other professional colleges which provide practical, psychomotor, basis have been part of our educational system for a long time now, the theory (with this application) as it is here only just emerged with us. Yet, if despite the presence of polytechnics and other vocational/professional institutions, with their mandate to satisfy the practical needs of Industry, we find Industry still in desperate want of attention from the universities, then it means that there is an error somewhere—perhaps, the educational system is not properly structured to meet the increasing complexities of Industry. There is need for a re-strategizing—a re-strategizing within the university system that has the potentiality to optimally serve the global workplace still; a strategizing with the educational Compatibilist orientation articulated above. Let us turn to consider this fresh strategy; as it relates to bridging the gap between the theoretical and the practical.

**Toward a University Compatibilist Curriculum**

Having admitted to the perennial parallel that exists between the idealist and realist philosophies of education; between the pursuit of theoretical knowledge for its own sake and that of practical needs, in terms of the desperate demands of the global marketplace on universities, we see that a Compatibilist curriculum is yet a possibility. The university can engage in its primary function of dispensing theoretical knowledge, while servicing the practical needs of industry too. All it needs is a carefully designed, effective Compatibilist curriculum. Such curriculum would float multidisciplinary programmes in the various faculties; insist on joint research between combinations of faculties, to ensure a broad general education for learners. This will assist learners to be flexible, equipping them with the ability to multi-task, especially in this age of the internet. It will feature in-built Industrial Training (IT) scheme, with Entrepreneurial Skills (ES) taught as subjects. There would also be Students-Industrial-Work-Experience Scheme (SIWES), where learners work on their specific areas of specialization, while schooling.; a curriculum strategy akin to the South Korean model.

Furthermore, may I suggest that each of these multidisciplinary programmes should be designed along the following three components:

A) Ontological/Methodological/Axiological base.

B) Disciplinary content.
C) Practical application (Unah, 2008).

In this structure, section A of any given course of study should be taught by academics in the foundation disciplines in the universities, such as Ontology (Metaphysics), Epistemology and Ethics since all disciplines are planned, organized, prosecuted and guided by their underpinning philosophies; section B should be taught by academics in the discipline in question (say, Business Administration or Engineering) and section C to be taught by any distinguished captain of industry (as adjunct/guest lecturers) where the knowledge acquired from sections A and B would be applied. Such programmes should be interlaced with the values and virtues of mutual interdependence, reciprocal solidarity, honesty, integrity, diligence, civility and courtesy (Unah, 2008: 16).

If this is curriculum is packaged by experts after due consultations with all the relevant stakeholders in university education, it stands to reason that the valley between the Ivory towers and Industry would be bridged effectively. The popular Philosophy, Politics and Economics (PPE) programme offered at the University of Oxford is a classic example of a multidisciplinary compatibilist curriculum.

Conclusion

In most well organized societies, manpower development is structured in the following hierarchy:

1. **University Education:** For theoretical knowledge. Generic knowledge of things, for their own sake; and development of analytical skills and special competencies.
2. **Polytechnic/Professional Education:** Otherwise known as middle-level manpower developmental stage, this level is responsible for the application of theoretical knowledge to practical matters, i.e. theoretical knowledge applied socially and technically.
3. **Artisans:** persons with technical and vocational training and skills who ought to deal with direct practical matters without necessarily acquiring theoretical knowledge through formal higher institution—as one may differentiate an auto mechanic from the mechanical engineer.

But, with increasing complexity of emerging societies, this has been shown to be inadequate. There is pressure on universities to engage in professional and technical-specific manpower development. Although this would infringe upon the original mandate of the Ivory tower, it can be done, to further extend and assert its relevance on industry and society. To do this involves adopting a Compatibilist curriculum as suggested above.

It is our conviction that a multidisciplinary compatibilist curriculum would bridge the gap between Town and Gown; between the University and the Global marketplace. However, since university graduates will always be more of theoretical men than practical ones (even with the Compatibilist curriculum), as the University is best suited to train such people, industries are
expected and encouraged to support the sharpening-up of these graduates with the establishment and maintenance of organizational in-service training systems. This will further assist in meeting their specific needs, as universities cannot train graduates along the specific core-values of each industry, given their infinite number. It will also prevent the fossilization of both the inductees and existing workers into incompetent employees, with the passage of time; for without continuous training and re-training in the workplace both the new inductees and the existing staff, and even the competent employees will become incompetent (Ibrahim, 2011).

References