Pedagogic foundation of art education in Ghana

Frimpong K. Duku (PhD)
Department of Art Education, University of Education, P. O. Box 25, Winneba - Ghana
Email: fkduku@yahoo.com

Abstract

This paper is one of the discourses to holistically evaluate university art education curriculum in Ghana. The faculty of any course is responsible for setting the climate or tone for the dissemination of information. This is at times compounded by advancement in the technology used in the teaching and learning process. The problem of this study was to investigate the pedagogical underpinnings of art education in Ghana against the 21st century teaching and learning skills requirements. This exploratory research utilized both qualitative and quantitative methods. Findings indicated that majority of the respondents agreed that the faculty used variety of teaching methods and again, faculty employs technology to their advantage in making sure that students understand the concepts they impart and by the appropriate means available. Currently there is little mix in the Department of Art Education as most of the members of faculty are on the lecturer level.

Keywords: pedagogy, art, education, evaluation and 21st century skills.

1.0 Background to the study

The year 1927 saw the introduction of art education into the curricula of education in Ghana at Achimota College. Kwame Nkrumah University of Science and Technology (KNUST), the then College of Technology – Kumasi, took over specialization of teacher education programmes from Achimota in 1952 as a result of its upgrading to a university in 1957. Barely six years of its existence in KNUST, had it become necessary to move the teacher training department which included Art Education to the present North campus, University of Education, Winneba (UEW). The Department of Art Education has since trained art teachers for the pre-university levels of education in Ghana. It is expected that, for all these years, the teaching of art education should have been perfected to the level that will be besieged with little or no pedagogical problems. However, several technical difficulties bedevil the profession even at the tertiary level of education in Ghana. Among others, studios designed for ten students now accommodates over fifty students; Lecturer-student ratio is beyond the National accreditation board prescription of 1:15; lack of studio tools and equipment; and over reliance on the use of lecture method as a means of instruction. Art Education in Ghana is a teaching programme designed to equip the learner with the skills and knowledge to teach the visual arts subjects (Graphic Design, Painting, Textiles, Leatherwork, Basketry, Jewellery, Ceramics and Sculpture) at the pre-tertiary level after completion of the programme. However, there are indications to the fact that some graduates of the programme, over the years, are unable to teach the Visual Art subjects (Amissah, 2004, Ross and Opoku-Asare, 2009). This study sought to examine the pedagogic foundations of the Lecturer that taught these graduates to determine the causes of the products failure.

2.0 Research questions

The study was guided by the following research questions:
• Is there a close agreement between the stated course objectives and what is actually taught?
• Do lecturers incorporate 21st century teaching and learning skills in the courses taught?
• Do the lecturers help students to develop specific practical skills needed by professionals in the field related to Art Education?

3.0 The purpose of the study

This study is one of the discourses to holistically evaluate university art education curriculum in Ghana. It is limited to the pedagogic approaches to the practice of art education in Ghana with special reference to University of Education, Winneba (UEW) and Kwame Nkrumah University of Science and Technology (KNUST). The purpose of this research is therefore, to investigate the pedagogic choices adopted by lecturers and their impact on learning.

4.0 Conceptual framework

Key concepts and theories that support this study have been discussed under the conceptual framework. Miles and
Huberman (1994) defined a conceptual framework as a visual or written product, one that “explains, either graphically or in narrative form, the main things to be studied—the key factors, concepts, or variables—and the presumed relationships among them” (p. 18). In a broader sense, they include the ideas and beliefs that are held about the phenomena studied, whether these are written down or not.

Pedagogic skills are hinged to motivational skills and persona, communication skills, instructional strategies and assessment skills. Teaching methods could be split into two cords: teacher-centred which includes direct teaching, corporate learning, lecture, lecture with discussion, panel of experts, videotapes/slides, directed discussion, small group discussions, guest speakers. The teacher-centred approach begins with a body of knowledge that exists independent of the individual student. The teacher is viewed as the primary expert on the body of knowledge in question. Teaching occurs as the knowledge is transmitted from the teacher to the student. Activities such as recitation, group work/learning, student-peer feedback, case method, inquiry-based or inquiry-guided learning, problem/project-based learning, role plays, brainstorming, fieldwork and clinical are considered learner-centred.

Nilson (2010) presented the drafted analysis in table 1 based on Bloom (1956) and Anderson and Krathwohl (2000). These methods should be able to develop all the objectives stated; they should be realistic, they should permit the learners to learn by themselves and should allow the learners to be active in gaining knowledge in practice skills and develop a healthy attitude. The tenets of student-centred learning are to allow students to mould their own learning paths and place upon them the responsibility to actively participate in making their educational process a meaningful one (Attard, Di Iorio, Geven, Santa, 2010).

Learner-centred concepts are instructional designs and teaching practices based on learning and cognition. Such practices create environments that encourage successful learning with little dependency on the teacher. With learning outcomes and student satisfaction increasingly becoming important, learner-centred concepts can help the Ghanaian institutions improve teaching and learning. These key concepts describe the conditions that lead to learning, identify teaching practices, learning activities that create such conditions, and support the design of effective learning environments. This concept borders on specific needs and characteristics of a particular group of students. The needs include but are not limited to social, economic, developmental, cultural, intellectual, psychological, spiritual and physical development. Learning is a hidden mental process over which the teacher has no direct control (Petty, 2009). Learner-centred method of delivery seeks to take the student as the main aim of teaching and learning.

Learner-centred teaching methodology represents an educational and instructional philosophy in which the key elements of teaching and learning in the traditional teacher centred format of education are reshaped, redefined and reformed. Much of discussions on teacher-centred and student-centred approaches to teaching have been in the context of primary and secondary education; these concepts have also been influential within university settings (Barber, 2007). The distinction between student-centred and teacher-centred pedagogy is often made with reference to the distribution of expertise and authority in the classroom. Teacher-centred pedagogy is generally defined as a style in which the teacher is considered as the sole source of knowledge who assumes primary responsibility for the communication of knowledge to students. From this view, because teachers command greater expertise about the subject matter, they are in the best position to decide the structure and content of any given classroom experience. Teacher-centred pedagogy is usually understood to involve the use of the lecture as a primary means of communication in the classroom. The lecturer disseminates a relatively fixed body of knowledge to students through the lecture format in a unilateral fashion; he or she elaborates upon a given body of knowledge from his or her own expert perspective rather than building the content of classroom communication around questions that students might have. Hancock, Bray and Nason (2003) define teacher-centred instruction as follows:

The teacher (a) is the dominant leader who establishes and enforces rules in the classroom; (b) structures learning tasks and establishes the time and method for task completion; (c) states, explains and models the lesson objectives and actively maintains student on-task involvement; (d) responds to students through direct, right/wrong feedback, uses prompts and cues, and, if necessary, provides correct answers; (e) asks primarily direct, recall-recognition questions and few inferential questions; (f) summarizes frequently during and at the conclusion of a lesson; and (g) signals transitions between lesson points and topic areas (p. 366).

Teacher-centred pedagogy is often described as being based upon a model of an active teacher and a passive student. However, learner-centred education is based upon the idea of an active student. Attard (2010) defined a student-centred learning as:

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Student-Centred Learning represents both a mindset and a culture within a given higher education institution and is a learning approach which is broadly related to, and supported by, constructivist theories of learning. It is characterised by innovative methods of teaching which aim to promote learning in communication with teachers and other learners and which take students seriously as active participants in their own learning, fostering transferable skills such as problem-solving, critical thinking and reflective thinking. (p. 5)

From this view, the lecturer does not function as the primary source of knowledge in the classroom. Instead, the lecturer is viewed as a facilitator or coach who assists students who are seen as the primary architects of their learning. Hancock, Bray and Nason (2003) describe learner-centred pedagogy as follows:

a) teachers are a catalyst or helper to students who establish and enforce their own rules; (b) teachers respond to student work through neutral feedback and encourage students to provide alternative/additional responses, (c) teachers ask mostly divergent questions and few recall questions, (d) students are allowed to select the learning task and the manner and order in which it is completed, (e) students are presented with examples of the content to be learned and are encouraged to identify the rule of behaviour embedded in the content, (f) students are encouraged to summarize and review important lesson objectives throughout the lesson and the conclusion of the activity, (g) students are encouraged to choose new activities in the session and select different topics for study, and (h) students signal their readiness for transition to the next learning set (pp. 366-367).

Whichever topic the lecturer intends to deliver should focus on the needs and characteristics of the students concerned. Deductions from literature indicate that people do not learn well when their major learning context is teacher-centered rather; they learn when they are actively engaged in an activity, a life experience (Bligh, 2000; Hake, 1998; Jones-Wilson, 2005; McKeachie, 2002; Nilson 2010; Spence, 2001; Svinicki, 2004). The strength of learner-centred approach as a superior alternative to the teaching of art education in Ghana as against the teacher-centred approach has been summarized in table 2 below.

5.0 Methodology

5.1 Research design

This exploratory research utilised both qualitative and quantitative approaches to address the research questions. The questionnaire was distributed to students to produce data for analysis in order to describe the current pedagogic foundation of art education as practice in Ghana.

5.2 Research instruments

The instruments that were employed to gather the data were focus groups interview, questionnaire, extensive classroom observation, and documentary review to gather data. The use of multiple methodologies permitted triangulation of the data to improve the validity of the findings, and enabled greater inferences from the results.

5.3 Data analysis plan

Data from the questionnaire (quantitative) were analysed using SPSS. The data were used in answering the research question one. As needed, frequency counts and valid per cents were obtained. In the analysis, the Likert categories of strongly agree (5) and agree (4) as well as categories of strongly disagree (1), disagree (2), and undecided (3) were collapsed. In other words, categories of agree and strongly agree were combined and a score of (1) was assigned to all agree/strongly agree responses. They were represented in this report with ‘agreed’ (A). Categories of disagree/strongly disagree were combined and a score of (0) to their responses. ‘Disagreed’ (D) is used in this report to represent these categories. The researcher decided that since there was no “undecided” as a response, no value was assigned.

In the cases of the qualitative data obtained from the documentary review, focus group interview, and observations, they were discussed based on themes that emerged. These instruments were used to address the second and third research questions of the study.

5.4 Population, sample and technique

The accessible population available for this research included students of Department of Art Education, (UEW) and Department of General Arts Studies, (KNUST) as well as lecturers of the various courses and retired staff of these
departments. A total of one hundred and forty-nine respondents were contacted for the research through a purposive sampling technique consisting of one hundred and forty (140) students, six (6) lecturers and three (3) retired lecturers.

6.0 Discussion of findings
The discussion has been organised into sub-sections to reflect the key issues identified in the literature. This has been done within the bounds of addressing each research question.

6.1 Is there a close agreement between the stated course objectives and what is actually taught?

6.1.1 Students
Feedback on activities carried out is necessary to facilitate improvement on outcome. In item one from table 3, 74 (52.9%) of the respondents felt the outcome provided by lecturers was ideal. However, 66 (47.1%) of the respondents lamented that lecturers did not provide feedback on their progress in the course. Undergraduate’s cumulative grade point was based on the performance of the candidate. Failure to provide early and prompt feedback will blur the aspirations and focus of the students. Lecturers were then urged to make available the necessary academic information on students early enough to help them improve on their worth. Again, certain objectives or goals were stated. The aim was to inquire if the learner had actually acquired the facts, the knowledge, the skills, the attitudes, the beliefs, and the values that were intended. It was also done to find out whether the selected content contributed effectively; whether the integration of experience and content were effective. Other such important issues would be ascertained under the evaluation. Wheeler (1967) asserts that theory can be strengthened and practice made more effective if this sort of thorough going evaluation is pursued. The fundamental purpose of curriculum development is to ensure that students receive integrated, coherent learning experiences that contribute towards their personal, academic and professional learning development.

Majority (85%) of the respondents gave the indication that the course objectives were clearly explained to them while 15% felt that the course objectives were not explained. All questionnaire sought information on the general view of all the courses offered and not the individual course of study. This means that the failure of one or two lecturers to clearly explain the course objective to students may affect students’ perception, interpretation and judgement.

With reference to lecturer emphasizing important points in the course of teaching, majority (75.7%) as opposed to the minority (24.3%) of the respondents agreed that lecturers placed emphasis on important points. This meant that the very core of each course was stretched for the understanding of the students. Students were supposed to apply the knowledge gained in their future lives.

Item five in table 3 which sought to inquire if the relevance of each course of study was laid bare, produced a response where majority (54.3%) as against 45.7% of the respondents agreed that as the course progressed, the lecturers showed how each topic fit into the course as a whole. The data illustrate the respondents’ awareness of how each of the topics fits into the main course.

In item six of table 3, the focus was to inquire whether there was a close agreement between the stated course objectives and what was actually taught. Fifty of the respondents representing 36% answered in the negative while 90 (64%) felt the lecturers were able to meet their stated objectives for the course. What is gathered was that the lecturers had the prerogative to develop course content for courses assigned them each semester. In this view, it was realised that the same course had different contents depending on the lecturer that taught it at a particular semester. It should be possible for departments to agree on acceptable contents for each course developed to ensure consistency and coherence.

Again, the questionnaire was meant to assess some specific activities of the lecturers that contribute to the success of the programme or otherwise. The respondents were requested to assess the general performance of the lecturers. 44 (31.4%) of the respondents were of the view that the lecturers were not good whereas majority 96 (68.6%) agreed that the lecturers were good. The art education programme in Ghana is considered a teacher training programme. In view of this, it is imperative that lecturers are positioned to give out their best. The slightest insinuation on the integrity of the lecturers should be of great concern.

6.1.2 The lecturers
From the documentary review, focus group interview, and observations, lecturers had varying academic qualifications. From
the documents it was realised that two of the lecturers sampled held doctoral degrees in art education or a related field, such as curriculum and instruction or art education. Four respondents listed themselves as having Master’s degree in various disciplines. When asked whether they would describe themselves primarily as art educator, artist, art historian, art critic, or other, all six (6) respondents identified themselves as “art educators.” It was observed that out of the six lecturers, no one was at the professorial level, one was a senior lecturer, and five were lecturers. This indicated that majority of lecturers were of lecturer’s status. This has serious implications for lecturers’ promotion since at the university level and particularly in Ghanaian Universities, research and publications are more considered when it comes to promotion than other activities. Lecturers and all academics need to regenerate their seriousness about teaching, learning and more importantly, research. All these have implications on the infrastructure and facilities in the universities and most important of all, the institutional expectations on the lecturers.

When lecturers were to indicate the level at which students participated in class discussions, two of the respondents said that the level of students’ participation was either poor or unacceptable, while four indicated that the level of students’ participation is satisfactory. By this, majority of the lecturers said that they allowed their students to participate in the courses they teach and students had the opportunity to ask for clarification or explanations on issues that they find difficult to comprehend. This supports the position of Hénard (2010) who noted that unlike the secondary school, higher education students are expected to gain an academic background, and become professionally reflexive and socially responsive. When asked whether the courses taught at the university levels are evaluated based on a criterion and whether criterion used was as fair as possible, majority of the respondents as against minority felt their evaluation methods were satisfactory or good or excellent. By this, lecturers used evaluation methods that were fair in all respects.

The research measured a critical component of university education - teaching. It is therefore imperative that lecturers employed to teach must have command over the subject they teach. Regarding the issue of knowledge base of lecturers on the courses they teach and to also triangulate the responses received from the students on the same issue, most of the lecturers’ responses revealed that they had sufficient and thorough in-depth knowledge over courses they teach. However, at the undergraduate level of the Art Education curriculum, responses revealed that some lecturers were handling courses which were not in their area of speciality. This might have accounted for the reasons why minority of the respondents felt that their knowledge to teach courses assigned them was insufficient.

This notwithstanding, the responses further indicated that lecturers employed to teach the art education courses had sufficient knowledge in the courses they teach. This corroborates that of Fraenkel and Wallen (2000) who noted that the successful lecturer is one who knows thoroughly what he or she is teaching and those whom he or she is teaching and has the ability to link the two through a mastery of communication. It is not enough to have the knowledge without adequate and appropriate means of transferring this knowledge. Nilson (2010) describes such communication as teaching move. In her view, teaching moves are strategies for clarifying content and giving students practice in thinking about and working with it, as reflected in their learning outcomes.

The conclusive result of decades of research on knowledge base is that what a person already knows largely determines what new information he attends to, how he organizes and represents new information, and how he filters new experiences, and even what he determines to be important or relevant (Alexander & Murphy, 2000). This lecturers need to exhibit sufficient knowledge of teaching methods and select appropriate methods for teaching contents. In this purview, Art Education curriculum stood to gain from lecturers who not only know the content of the courses they teach but had control over the teaching methods to use. In spite of the outcome from the above, students interviewed agreed that the lecturers stimulated their interest in the subject. Such encouragements should be reinforced so that many students would see the need to learn. Notwithstanding, they proposed that lecturers should adopt the constructivist approach to teaching and learning.

6.2 Do lecturers incorporate 21st century teaching and learning skills in the courses taught?

Art education in Ghana encourages the student to ask questions and be inquisitive. The lecturer is seen as a facilitator and guide, rather than as the main source of knowledge. This approach, therefore, supports the 21st century learning skills where the role of the teacher has changed from being entrusted with the ‘transmission of knowledge to supporting and guiding self-regulated student learning’ (Van Eekelen, Boshuizen, & Vermunt, 2005, p.447). Amenuke (1999) states several teaching techniques are used in Ghanaian art education, but the choice of any technique depends upon the nature of the subject being taught; its content, resources, and the situation in which the teaching is being done. In Art education, practice based form of teaching is preferred to lecture and any form of technique that calls for subject memorization of facts should, therefore, be
The use of information technology teaching resources featured in the items for respondents to react to. It was realised that the only IT resources available for teaching was a liquid crystal display (LCD) projector which only few of the lecturers patronised. More IT resources could be used by lecturers to help in their teaching since according to UNESCO (2002) technological developments lead to changes in work and changes in the organization of work, and required competencies are therefore changing. Arko-Cobbah (2004, p.267) refers to the central role of information and communication technology (ICT) as a ‘central component of the learning process, especially when it comes to student centred learning’. Technology therefore, can be of use both inside, to help teachers in creating an interactive classroom environment, as well as outside the classroom, in order to enhance students’ learning processes and complement what is learnt in a classroom setting. This can empower students to access information and analyse it critically in their own time and space. It can also prove to be a highly useful component in designing professional development programmes, as proposed by Lavoie and Rosman (2007). In UNESCO (2002) studies of information and communication technology development in both developed and developing countries, they identified at least four broad approaches through which educational systems and individual schools proceed in their adoption and use of information and communication technologies. These four approaches are termed emerging, applying, infusing, and transforming. The study further revealed that schools at the beginning stages of information and communication technology development demonstrate the emerging approach. Such schools begin to purchase, or have had donated, some computing equipment and software. In this initial phase, administrators and lecturers are just starting to explore the possibilities and consequences of using ICT for school management and adding ICT to their curriculum. It was evident that schools at this emerging phase were still firmly grounded in traditional, teacher-centred practice. The curriculum reflects an increase in basic skills but there was an awareness of the uses of ICT. This is reflective of the practice and paradigm orientation of the two universities under this study.

It was observed that lecturers only used liquid crystal display projector in class and telephone out of class to connect with students and provide access. However, they could have also used multimedia presentations in class and online forums and chats, along with email access, and course websites for archiving readings and displaying students’ works. This means that lecturers could not employ technology to their advantage in making sure that students understood the concepts they imparted and by the appropriate means.

The method of teaching is varied to suit the course and level of students. The study explored respondents’ view on the use of variety of teaching methods by lecturers. The analysis indicates that majority of the respondents agreed that lecturers used variety of teaching methods while few did not observe such variation. It could therefore, be concluded that the lecturers varied their teaching methods to suit particular courses and students. Some of the data derived from the course outlines to triangulate this fact listed some teaching strategies adopted by the lecturers as demonstration, lecture, project work, field trip, discussions and the use of resource persons. The variety of teaching methods made it possible for the lecturers to use an appropriate method to send their messages across to the students. Lecturers emphasised that they did that because their students would invariably be teaching the future generation and as such strong foundation needed to be built. This supports the view that teachers should embrace the ‘new paradigm’ of professional development which has moved away from short-term teacher-training events where information is transmitted by an expert to a group of attentive listeners to a more constructive model (Lind, 2007). This new model is based on the recognition that learning takes place over time and that active learning requires opportunities to link previous knowledge with new understanding (Uptitis, 2005).

Nilson (2010) ascertains that in the course of building knowledge of the effectiveness of different teaching formats and methods, lecturers apparently run out of excuses for relying on traditional lecture. Bok (2006) accuses the lecturers of avoiding pedagogic debates for their own self-protection from change. He observes that:

Reforms of [pedagogy] require much more effort . . . . To avoid such difficulties, Lecturer have taken the principle of academic freedom and stretched it well beyond its original meaning to gain immunity from interference with how their courses should be taught . . . . Teaching methods have become the personal prerogative of the instructor rather than a subject appropriate for collective deliberation. The result is to shield from Lecturer review one of the most important ingredients in undergraduate education. (p. 49)

Lecturers protected their decisions under the guise of academic freedom (Macheski & Lowney, 2002). Much effort must be made by lecturers to create opportunities for students to be in the lead of the teaching and learning processes as is found out that learning is optimized which learner is actively involved (see fig. 1). Lecture accounts for the least retention rate as seen in figure 1 while when students are made to teach others generates much understanding leading to a greater retention.
6.3 Do the lecturers help students to develop specific practical skills needed by professionals in the field of related to art education?

On the issues of provision of adequate opportunity for questions and discussions during class time, it was observed that there were adequate opportunities made for questions and discussion. Theories of learning that highlight the roles of active engagement and social interaction in the students’ own construction of knowledge (Bruner, 1966; Kafai & Resnick, 1996; Piaget, 1963; Vygotsky, 1978) strongly support this student-centered paradigm. Learning is an interactive and a social process. Many environmental factors including how the instructor teaches, and how actively students are engaged in the learning process, positively or negatively influence how much and what students learn (Lambert & McCombs, 2000). Students had the opportunity of questioning any difficulty encountered during their study. This helped in broadening their scope, perception and understanding of art education as a course of study which helps in the acquisition of practical skills.

Majority of students interviewed agreed that the lecturers encouraged independent thinking. This implies that there is the respect for the individual’s independence in the course. Each student is encouraged to be him or herself. In art education curriculum, independence of the students fosters creativity. Students have the opportunity to freely express themselves and exhibit their innate creativity including contributing meaningfully to the study.

Art as a language of symbols tends to dwell much on the use of signs and symbols. It is therefore, imperative that lecturers make use of teaching aid to give a concrete understanding to courses of abstract nature. Observations used confirmed that lecturers used effective teaching aids or methods. In training students in Art Education, the trainees must not only observe their lecturers use the teaching aids; they must have the opportunity to make and use teaching aids where appropriate. The effectiveness is not concerned with any particular teaching method but rather, it is concerned, in a more general sense, with the way in which lecturers operate in their classrooms – the decisions they make, the actions they take, their interactions with students, their presentation skills, and the way they manage the group (Nilson, 2010).

Notwithstanding the fact that art education curriculum is designed to train art teachers for various levels of our national institutions, majority of students interviewed, agreed that the lecturers helped students to develop specific practical skills needed by professionals in the fields related to the course. This meant that the students had assistance in developing their skills in the various art subjects through the practical components of the courses offered. The general complaint among students when quality work was demanded, however, was that lecturers created stress for them by being too demanding. Lecturers teaching the undergraduates should seriously encourage and even coerce students to learn, to be interested in knowledge and be critical in their learning, and not just teach students to learn facts.

7.0 Conclusion

In teaching art education, the literature portrays a swing in favour of student-centred of which benefits in concretising learning outweigh that of the teacher-centred. This approach, therefore, supports the 21st century learning skills where the role of the teacher has changed from the point of conserving knowledge by transmitting them to succeeding generations to a standard where lecturers are challenged to redefine knowledge, test new approaches, and to improve school through organisational changes. Thus the level of students’ participation in lessons was considered satisfactory. However, ICT usage is still at the foundational level or emerging phase where limited ICT provisions are available. The responses further indicated that lecturers employed to teach the art education courses had sufficient knowledge in the courses they teach. There is a close agreement between the stated course objectives and what was actually taught. Students had the opportunity of questioning any difficulty encountered during their study. This helped in broadening their scope, perception and understanding of art education as a course of study which helps in the acquisition of practical skills.

References


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**Table 1.** Teaching methods found to be effective for helping students achieve different learning outcomes.

<table>
<thead>
<tr>
<th>Methods / Outcomes</th>
<th>Knowledge</th>
<th>Comprehension</th>
<th>Application</th>
<th>Analysis</th>
<th>Synthesis</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interactive lecture</td>
<td>X</td>
<td>X</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td></td>
</tr>
<tr>
<td>Recitation</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Directed discussion</td>
<td>X</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td></td>
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<tr>
<td>Writing/speaking exercises</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Group work or learning</td>
<td>X</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td></td>
<td></td>
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<tr>
<td>Student-peer feedback</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Case method</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Inquiry based or inquiry guided</td>
<td>X&lt;sup&gt;b&lt;/sup&gt;</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Problem-based learning</td>
<td>X&lt;sup&gt;b&lt;/sup&gt;</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Project-based learning</td>
<td>X&lt;sup&gt;b&lt;/sup&gt;</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Role plays and simulations</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
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<tr>
<td>Service-learning with reflection</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
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<tr>
<td>Fieldwork/clinical</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** An X indicates this method can help students achieve this learning outcome if the method is properly implemented to serve this outcome. Poor implementation or implementation for other ends may militate against students’ achieving the outcome.

<sup>a</sup> Depends on the lecture-break tasks, the discussion questions, or the group tasks assigned.

<sup>b</sup> The knowledge acquired may be narrowly focused on the problem or project.

Source: Drafted from Nilson (2010)
Table 2. Comparison of teacher-centred and learner-centred teaching on five key elements

<table>
<thead>
<tr>
<th>Teacher-Centred</th>
<th>Learner-Centred Teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Balance of Power</strong></td>
<td></td>
</tr>
<tr>
<td>The lecturer’s role is to be primary information giver and primary evaluator.</td>
<td>Power is shared by faculty and students. Faculties do not make all decision for students without student input. Power is usually redistributed to students in amounts proportional to their ability to handle it.</td>
</tr>
<tr>
<td><strong>Function of Content</strong></td>
<td></td>
</tr>
<tr>
<td>The lecture is the primary delivery methodology. Lecturers determine the</td>
<td>Content plays a dual function in learner-center teaching: establishing a knowledge base and promoting learning. Faculty should develop course content not to cover everything, but to develop learning skills and learner awareness.</td>
</tr>
<tr>
<td>boundary of teaching and learning.</td>
<td></td>
</tr>
<tr>
<td><strong>Role of the Teacher</strong></td>
<td></td>
</tr>
<tr>
<td>Instructors are the centre of the teaching and learning processes. Students</td>
<td>Faculties are conceived primarily as disciplinary experts who impart knowledge by lecturing. Instructors guide and facilitate learning, not forcing the learning, by sometimes stepping aside from the centre of classroom activities and empowering students to discover knowledge and learn from each other in an encouraging but controlled learning environment.</td>
</tr>
<tr>
<td>listen to the instructors and often follow orders.</td>
<td></td>
</tr>
<tr>
<td><strong>Responsibility for Learning</strong></td>
<td></td>
</tr>
<tr>
<td>Instructors are agents who delivery knowledge; while students are viewed as</td>
<td>Faculty should aim to create environments with fewer rules and requirements, which are conducive to learning, to encourage students to learn effectively, and to support the learning efforts of others. Students are motivated to build autonomy and responsibility in learning and receive timely feedback from faculty.</td>
</tr>
<tr>
<td>passive vessels, ingesting knowledge for recall on tests.</td>
<td></td>
</tr>
<tr>
<td><strong>Purpose and Processes of Evaluation</strong></td>
<td></td>
</tr>
<tr>
<td>Assessment is used to monitor learning. Emphasis is on right answers. Desired</td>
<td>Learner-centred methodology deploys a variety of assessment items. Instead of using a single grade as the sole evaluation tool, faculty should use evaluations to enhance students’ potential to promote learning and to give them opportunities to develop self- and peer-assessment skills. Evaluations and assessment should be less stressful and motivate students to reinforce their knowledge.</td>
</tr>
<tr>
<td>learning is assessed indirectly through the user of objectively scored tests.</td>
<td></td>
</tr>
<tr>
<td>Traditional tests measure declarative knowledge: learned recitations and</td>
<td></td>
</tr>
<tr>
<td>applications to small problems. They do not necessarily address depth of</td>
<td></td>
</tr>
<tr>
<td>understanding or the skills the students have acquired.</td>
<td></td>
</tr>
</tbody>
</table>

Source: (Saulnier et al., 2008; Weimer, 2002)
Table 3. Course content

<table>
<thead>
<tr>
<th>Item</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do the lecturers provide useful feedback on your progress in the</td>
<td>D: 74</td>
<td>52.9</td>
</tr>
<tr>
<td>course?</td>
<td>A: 66</td>
<td>47.1</td>
</tr>
<tr>
<td>2. Do the lecturers use a variety of teaching methods?</td>
<td>D: 60</td>
<td>42.9</td>
</tr>
<tr>
<td></td>
<td>A: 80</td>
<td>57.1</td>
</tr>
<tr>
<td>3. Are the course objectives clearly explained?</td>
<td>D: 21</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>A: 119</td>
<td>85</td>
</tr>
<tr>
<td>4. Do the lecturers emphasize important points when teaching?</td>
<td>D: 34</td>
<td>24.3</td>
</tr>
<tr>
<td></td>
<td>A: 106</td>
<td>75.7</td>
</tr>
<tr>
<td>5. As the course progressed, do the lecturers show how each topic fit</td>
<td>D: 64</td>
<td>45.7</td>
</tr>
<tr>
<td>into the course as a whole?</td>
<td>A: 76</td>
<td>54.3</td>
</tr>
<tr>
<td>6. Are there a close agreement between the stated course objectives</td>
<td>D: 50</td>
<td>36.0</td>
</tr>
<tr>
<td>and what the lecturer actually taught?</td>
<td>A: 90</td>
<td>64.0</td>
</tr>
<tr>
<td>7. Overall, are the faculty’s presentations clear and understandable?</td>
<td>D: 94</td>
<td>67.1</td>
</tr>
<tr>
<td></td>
<td>A: 46</td>
<td>32.9</td>
</tr>
</tbody>
</table>

Figure 1: 21st Century learning pyramid
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