ANALYSIS OF DIFFERENCES AMONG STUDENTS

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Abstract

The paper examines personal learning styles among undergraduate students who were introduced to Educational Psychology. Eighty (80) students were involved; forty four (44) males and thirty six (36) females. The investigator adopted Lewis and Greene (1982) Personal Learning Styles instrument which had ten (10) items with alternative “a” and “b” for respondents to choose from. The sum of either if more than six (6) shows that the learning styles of a respondent. The results showed that forty six (n=46) were holist or grouper while (n=10) were stringer or serialist or stringer. Therefore, paper establishes categories and differences in learning styles among respondents, their ability to take and process information and their difficulties. It concludes by emphasizing that teachers should be aware that learning styles are points along a scale that help us to discover the difficult forms of mental representation and not characterization of what people are or are not. It also recommends that teachers should always bear in mind that their students have different learning styles and are advised to vary their methods of teaching and giving instructions.

Keywords: Learning styles, grouper, holist, stringer and serialist

Introduction

Every teacher that gets into a class is naturally faced with the features of individual differences among his students. Most observable is the physical differences; the cognitive aspect is hidden until they are subjected to testing and evaluation. Recognizing and responding to these differences is both a responsibility and a challenge to the teacher.

In a class, laboratory or field situation where a teacher is involved in teaching and learning activities, students preferentially take and process information in different ways by seeing and learning, reflecting and acting, reasoning logically and intuitively, analyzing and visualizing steadily and in fits and starts. Some students prefer to read about a concept to learn it; others need to see a demonstration of the concepts; and as there are differences among students so are teachers. Teachers’ teaching methods vary. Some lecture while others demonstrate or lead students to self-discovery. Some focus on principles, others on applications. Some emphasize memory and others understanding.

When teaching methods are incongruent with the way students take in and process information, students may experience boredom, may be inattentive, may perform poorly in tests/exams, get discouraged about a course or the curriculum and themselves, and when they fail exams, may contemplate change to other curricula or drop out of school. Students may become discouraged when they perform poorly in examination and manifest undesirable behaviors which alert teachers and parents on the need to focus on their students’ or children’s non-performance. If unchecked, these students eventually leave school.

In order to overcome students’ problems, teachers should strike a balance in methods (as opposed to trying to teach each student exclusively according to his preferences). If a balance is achieved, all students will be taught partly in a manner they prefer which will lead to increasing comfort level and willingness to learn and partly in a less preferred manner which they may not initially be comfortable with but which they will have to use to be fully effective students and later professionals. Everybody has a preferred learning style. A learning style is a student’s consistent way of responding to and using stimuli in the context of learning. Keefe (1979) defines learning styles as the “composite of characteristics cognitive, an affective and physiological factors that serve as relatively stable indicators of how a learner perceives, interacts with and responds to the learning environment”. Stewart and Felcetti (1992)
define learning styles as the “educational conditions under which a student is most likely to learn.” Thus, learning styles is not really concerned with what a learner learns but rather how he prefers to learn. Knowing and understanding our learning styles will help us learn more effectively.

Teachers should assess the learning styles of their students and adopt a classroom method(s) that best fit(s). Each teacher should help students to identify their learning styles. If an individual understands his learning style, he will be able to capitalize on his strengths. Students with learning disabilities like attention deficit / disorder require maximum attention from their teachers, counselors and other professionals. An individual who knows his learning styles will develop coping strategies to compensate for his weakness and capitalize on his strength.

The main thrust of this study is an investigation of personal learning styles of undergraduate students of Gombe State University, Gombe Nigeria.

Sample
The sample was drawn from students in the Department of Education, Faculty of Education, Gombe State University, Gombe. They were in 200 and 300 levels and offered the course EDUC 203 (Educational Psychology) during their first semester 2007/2008. They were eighty (80). (N=80). Forty four (44) males and thirty six (36) females.

Instrument
Lewis and Greene (1982) (quoted in Elliot, Kratochwill, Cook and Travers, 2000) ‘Personal Learning Styles’ instrument was adopted. It contained ten (10) items with two alternatives “a” and “b”. They were concerned with the study of two learning styles: holist or grouper and stringer or serialists. Examples of items included e.g.
When studying an unfamiliar subject do you:
- a) Prefer to gather information from many topic areas?
- b) Prefer to study fairly close to the topic?

When studying textbooks:
- a) Skip ahead and read chapters of special interest out of sequence?
- b) Work systematically from one chapter to the next, not making on until you have understood earlier materials?

Procedures
The instrument was administered by the investigator and assisted by invigilators. It lasted ten (10) minutes. Immediately after the test administration, the students wrote EDUC 203 (Educational Psychology) first semester examinations. The investigator added up the ‘a’s’ and ‘b’s’. A respondent who scored six or more was considered a holist or to use Pask’s terminology (Pask, 1969) grouper, a respondent that scored more b’s was considered stringer or serialist.

Results
Table 1: Personal Learning Styles According to sex Level N=80

<table>
<thead>
<tr>
<th>Sex</th>
<th>Level</th>
<th>N</th>
<th>A</th>
<th>B</th>
<th>&lt;a or b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>200</td>
<td>36</td>
<td>23</td>
<td>04</td>
<td>9</td>
</tr>
<tr>
<td>Male</td>
<td>300</td>
<td>08</td>
<td>04</td>
<td>00</td>
<td>4</td>
</tr>
<tr>
<td>Female</td>
<td>200</td>
<td>31</td>
<td>16</td>
<td>06</td>
<td>9</td>
</tr>
<tr>
<td>Female</td>
<td>300</td>
<td>05</td>
<td>03</td>
<td>00</td>
<td>2</td>
</tr>
<tr>
<td>N</td>
<td>80</td>
<td></td>
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</tr>
</tbody>
</table>

The result in table 1 shows that of the thirty six 200 level male students 23 were holist while 4 were stringers. All the male students in 300 levels are holist. Of the 31 female in 200 level, 16 of them were holists while 6 were stinger. And in 300 level, 3 out of 5 females were holist and none was a stringer. It should also be observed that in all categories, there were individuals who were either holist or stringer. Either holist or stringer appeared frequently because individuals can be active sometimes and reflective times. These respondents would require longer time to decide which one they should take to work out the problem.
Discussion
From the results, it is noticed that majority of the study sample (n=46) are holist or grouper. A grouper or holist is a student or individual who probably prefers as wide a grasp of a subject as possible. He likes to learn general principles and attempts to relate the topic under consideration to as many related subjects as possible. He usually learns better under unstructured situations tending to resist detailed classes and instructional methods. Such individuals begin by studying general concepts and the total situation or problem before commencing more on detailed analysis. As an illustration, in studying the working of a particular computer, the individual probably would start by acquiring knowledge about the history of computer, something about the general technology and perhaps several examples of computer usage in our society then sets on to a more systematic study of a particular computer say, “Zinox” within this framework.

Also, from the result, (n=10) were stringer or serialist. These are individuals who probably opt for a systematic, methodical analysis that will lead to the mastery of details. Mukherje, (1978) describes stringers or serialist as those who work steadily through a narrow sequence of the whole problem and they come to the broad picture later in their operation. Among the studied samples, some are either holist or stringers. This means that some may require longer time to comprehend a problem while others may take shorter time to tackle the same problem. The results clearly show students differences in learning styles. The question whether there are any differences among students learning styles is confirmed by the results.

Conclusion
From the foregoing, we may conclude that majority of the sample (n=46) are holist or grouper and less than half of the population (n=10) are stringer or serialist. (n=24) are neither holist or grouper nor stringers or serialist. Learning style is a point along scale that helps us to discover the different forms of mental representations; they are not characterization of what people are or are not. We should not as teachers divide our students into a set of categories (i.e. that some are visuals (holist) or (stringer) auditory learners. What this study has attempted to do was to allocate the students on some point on a continuum (similar to height or weight). In other words, we should not pigeonhole people as we are capable of learning under almost any style, no matter what our preference is.

Teachers need to be sensitized on the implications of learning styles. Witkin, Moore, Ottman, Goodenough Cox (1977) equally opined that teachers need to be sensitized on learning style as to make them adaptable in the teaching learning process. Doebler and Eicke (1979) equally opine that teachers need to be alerted with the characteristics of various learning styles because the knowledge will help them know how best to deal with students with different learning styles. This will promote easier adjustment. It is also a way of maximizing teaching. Varieties in performance are not entirely a question of intellect, motivation or thinking skills, but depend on the personal attributes (personality traits) which can enhance or inhibit the quality of performance.

Merrill (2000) proposes that the best philosophy for using learning style is that instructional strategies should “first be determined on the basis of the type of content to be taught or the goals of the instruction. Secondly, learners’ styles and preferences are then used to adjust or fine-tune these fundamental learning strategies”. Merrill (2000) added that most students are unaware of their learning styles. This study affirms this statement and concludes that if students are left without guidance they are unlikely to start learning in new ways. Thus, students need to know their learning style, because the knowledge of one’s learning style can be used to increase self awareness and thus develop coping strategies to compensate for one’s weakness and capitalize on one’s strength. Coffield, Moseley, Hall and Ecclestone (2004) knotted this position by arguing that “being aware of one’s own thoughts and learning process can be gained by encouraging learners to become knowledgeable about their own learning and that of others.” Thus, information about learning styles is helpful especially for people with learning disabilities and attention deficit /disorder and in the management of people e.g. teachers, counselors, psychologist, etc
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