Mahatma Education Society's

Pillai HOC College of Education & Research, Rasayani

SEM II – Commerce Pedagogy

ELECTIVE COURSE 2 (EC 2) - PEDAGOGY OF SCHOOL SUBJECT

Unit 1 - Basics of Academic Disciplines

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a) Meaning of academic disciplines

A subject or a field of study is a branch of knowledge that is taught and researched at the school, college or university level. A school subject refers to an area of knowledge that is studied in school. It can be called a learning tool or the criteria by which we learn. Subject refers to a branch of knowledge studied or taught. In schools, children learn a number of subjects such as Mathematics, Science, Language, History,Music, Art, Dance, etc.

What is a Discipline?

Discipline refers to a branch of academic study. For example, psychology, sociology, anthropology, mathematics and philosophy are all disciplines. These can mostly be seen in higher educational institutions such as universities. Disciplines usually consist of theoretical backgrounds, research and experiments, groups of experts in the discipline, etc. For example, a person who is pursuing his studies in a particular discipline not only gains an in-depth understanding of it but also conducts experimentsor research as well.

An academic discipline is a branch of knowledge that is taught and researched as part of higher education. Discipline is defined by the Oxford English Dictionary as "a branch of learning or scholarly instruction."

An academic discipline is clearly defined by its expertise, people, projects, communities, challenges, studies, inquiry, and research areas that are strongly associated with a given discipline.

While students are dealing with relatively simple ideas and methods in school subjects, they study the same ideas and methods known by experts in the academic disciplines. So, school subjects are the connecting links to academic disciplines.

Academic disciplines are of complex nature, and they are the continuation of school subjects. School subjects are basis for the development of basic information that will turns the learners

into specialists in academic disciplines.

Arthur Dirks points out ‘discipline in an academic sense, pertains to the practice of study of a certain category of experience, its methodologies, how it goes about its pursuit of truth. There is fundamental theory and facts that informs the practice of that pursuit, but it is the pursuit that counts’.

According to Glosbe, “Academic discipline is a branch of knowledge or learning which is taught or researched at the college or University level”.

According to Moti Nissani, a discipline can be conveniently defined as the study of “any comparatively self- contained isolated domain of human experience which possesses its own community of experts”.

“Academic discipline is a field or branch of learning affiliated with a academic department of a university, formulated for the advancement of research. It is formulated for the formal training of researchers, academicians and specialists”.

Deng Z (2013)

Characteristics of academic disciplines

1) Disciplines have a body of accumulated specialised knowledge referring to their object of research, which is specific to them and not generally shared with another discipline.

2) Disciplines have theories and concepts that can organize the specialised knowledge effectively. Take the discipline of Psychology for instance. The process of how learning occurs is elucidated by different theories.

3) Disciplines use specific terminologies or a specific technical language adjusted to their research object. The discipline of Science has its own technical language. Specific terminologies are used in the discipline. For example words like ‘consumer’, ‘ecosystem’, ‘producer’ will have a definite meaning in Environmental Sciences but the same terms used in the discipline of Business Studies would mean something entirelydifferent.

4) Disciplines have a particular object of research (e.g. law, society, politics), though the object of research may be shared with another discipline. For example ‘human behaviour’ is one object of research in the fields of Psychology, Education and Management.

5) Disciplines have developed specific research methods according to their specific research

requirements. A discipline is defined by its method. For example, if someone is studying Science then there is a particular method incorporated in the study. Disciplines defined by a particular method are capable to realizing genuine change andtheir scope is also concrete.

6) Disciplines must have some institutional manifestation in the form of subjects taught at universities or colleges, respective academic departments and professional associations connected to it. For eg. The discipline of Medicine for example is characterized by medical colleges. The association of doctors and publications in this field are part of the institutional manifestation of the discipline of Medicine.

Academic disciplines and subjects

Different subjects share common areas of study and the nature of research. On the basis of these common aspects, subjects could be grouped under a specific discipline.

Based on the courses offered, subjects can be broadly classified under the following disciplines and few examples of subjects are given:

a) Humanities - Language, Arts, Religion, Philosophy, Cultural Studies

b) Social Sciences - History, Geography, Economics, Law, Anthropology

c) Natural Sciences - Physics, Chemistry, Life Sciences, Geosciences

d) Mathematics - Arithmetic, Algebra, Geometry

e) Business - Finance, Accounting, Taxation, Management, Marketing

Relationship between academic disciplines and subjects

- Academic disciplines comprise of subjects. The specific characteristics of different disciplines make it easy to classify specific subjects (or sub disciplines) to specific disciplines. The broad outline of a discipline gives an idea of what one can expect to learn in a given subject.
- A subject is best understood against the background of the discipline that it is classified under. If one understands the basic characteristics of Natural Sciences then one can understand its specific subjects like Chemistry and Physics.
- Subjects form a discipline. The scope of the discipline widens due to subjects. New subjects

or sub- disciplines may emerge with changing times. This can bring better understanding of subjects that pre- exist in that discipline.

- Inter relationships exist between subjects clubbed under one discipline. Hence for better clarity of a subject one may need to refer to other subjects. The other subjects are understood effectively if one has clarity about the parent discipline.
- Students of a particular discipline share common goals, common content and common research methodology. Hence, they should be aware of the main discipline and its component subjects as it lends clarity to the subject being studied. For example, a researcher in Education will benefit if there is a firm grounding of the disciplines of Humanities and Social Sciences as Education draws from both these disciplines.
- Research papers or academic writings on a subject are also guided by the discipline to which that subject belongs. A subtle difference between academic disciplines and subjects is that subjects normally pertain to syllabi, teaching –learningexperiences and assessment.
- Subjects are generally associated with educational institutions. Subjects lend substance to a discipline. In turn the discipline fine tunes the subject lending it a distinct flavour. Those who pursue a particular subject should have a good understanding of the discipline of the subject so that the subject is understood comprehensively.

Academic disciplines and subjects are like ground and figure. One without the other is meaningless.

Business as a discipline:

The discipline of business comprises of subject areas like Accounting and Finance, Business Information Systems, Economics, Management, Marketing and Human Resource Management. Understanding the basics of Business as a discipline is something that everyone needs.

This discipline helps to make informed decisions, manage one's assets wisely and understand how transactions in trade and commerce occur.

In our personal lives the discipline of business helps to understand various aspects of finance, investment and banking. Trade and commerce which is the backbone of a nation depends heavily on Business as a discipline.

Economics which determines the progress of a nation is a sub discipline in Business. Management Studies are an integral part of any organization. Our relations with foreign nations, the pace at which our industries thrive and the well- being of any population are

affected by this discipline.

Relation between Business and Commerce

Commerce is the study of trade and business activities such as the exchange of goods and services from producer to final consumer. Commerce deals with those activities which are undertaken for profit. So only economic activities are included in commerce. Commerce creates place and time utility in goods. The goods may not be consumed at the place of production or at different places.

Commerce has a wide scope. It deals with not only the activities related to transfer of goods and services but also with the development and promotion of trade and its allied activities.

Questions

1. Explain the meaning of academic discipline.
2. Discuss the relationship between academic discipline and subjects.
3. "Academic disciplines and subjects are interrelated". Justify.

References

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Unit 1 b) Classification of academic disciplines: Becher – Biglan Typology

There are various disciplines as we know. Anthony Biglan in 1973, came up with data on the basis of which he classified different disciplines.

Pure discipline

- tends towards fundamental research,
- systematic observation of phenomena solely for the purpose of discovering unknown facts which may develop into theories.
- the product is always new knowledge.

Egs: Pure Physics, Pure Chemistry, Pure Mathematics

Applied discipline

- This relate existing knowledge to real world situations.
- They make significant contributions to the world by articulating the theoretical foundations in their field of study.
- Egs: Education, Applied Psychology, Engineering (application of Science and Mathematics)

Hard discipline

- They tend to use quantitative data,
- They use experimental methods, and
- tend to be predictive.
- Concern for career development and cognitive goals (such as the learning of facts and concepts).
- Eg: Physics, Chemistry, Engineering

Soft Disciplines:

- They rely on qualitative data,
- They generally do not use experimental methods, and

- They cannot make conclusive predictions concerning the future.
- Concern for general education development, character development, critical thinking and 'scholarly' activities (such as the reading of research articles).
- Egs. are Languages, Law, Anthropology and Education.

- Another distinction was based on disciplines concerned with biological or social areas (eg. Biology, Psychology) and those concerned with inanimate objects (eg. Physics, Geology).

While Biglan's work concentrated on the cognitive dimension of disciplines, Tony Becher in 1989 called attention to the social dimensions of academic disciplines. From this emerged the **Biglan-Becher typology of academic disciplines**.

Hard-pure discipline

- The nature of knowledge in these disciplines is cumulative and concerned with universal phenomena. The result of such knowledge is discovery of something new or expansion of already existing knowledge. As new knowledge keeps adding, the older form of knowledge is enhanced.
- The relationship between the knowledge seeker and knowledge is unbiased and very objective. There are very definite criteria to verify knowledge in such disciplines. There is a high degree of consensus over significant questions.
- Academic communities in hard-pure disciplines are well organized, their work is quite competitive and publication rates are high.
- Eg: Mathematics, Physics, Biology, Chemistry

Hard-Applied Disciplines

- They are involved in purposive work. The emphasis is on application of theories resulting in creating techniques and products. These disciplines are practical in nature and are concerned with solving problems, addressing challenges and mastering the environment around us.
- The focus is on application and hence heuristic approaches find more importance in such disciplines. They use both quantitative and qualitative approaches.

- The criteria for judging the product of such disciplines are functional. Such disciplines result in new techniques and products being created.
- The ethos in such disciplines is entrepreneurial and dominated by professional values. Patents are submitted for publication.
- Engineering is a hard-applied discipline which draws from Mathematics, Physics and Chemistry.
- Clinical Medicine is a hard-applied discipline dependent upon Biology and Chemistry.
- Egs. Medicine, engineering, design

Soft-Pure Disciplines

- They stress on understanding and interpretation of phenomena. Knowledge in these disciplines is reiterative which means there may be repetition of knowledge when examined in different situations.
- These disciplines are concerned with particular happenings rather than general occurrences. Unlike hard sciences, here data is qualitative. The researcher and knowledge share a personal relationship. There can be different views regarding verification of data.
- Subjectivity can be high when interpretations are made. There is no definiteness as to what significant questions are to be answered.
- The academic communities of such disciplines tend to be less structured compared to those from hard-pure disciplines. Publication rate is also lower.
- It is interesting to note that while a discipline like Sociology is a soft-pure discipline, Sociometric, a subfield of Sociology, is hard-pure discipline.
- Egs. Anthropology, History

Soft-Applied Disciplines

- Emphasize processes and protocols. These are functional and utilitarian in nature. They are concerned with the enhancement of professional practice. Often their status is uncertain. They also appear to be dominated by intellectualfashions.

- They use a mix of qualitative and quantitative data for their growth. Case studies form an important tool in such disciplines. Publication rates in these disciplines are low.
- Egs. Law, Education

Thus, the understanding of Biglan-Becher typology gives an overview of how different disciplines are similar and how they differ. One also sees how a particular group of disciplines has somewhat similar characteristics with respect to research carried out or publications made.

Examples:

Hard pure: Mathematics, Life Sciences, Earth Science, Environmental Science, Physics Hard Applied: Technology, Computing, Design, Engineering
Soft pure: Economics, Geography, Psychology, Politics & Int' l Studies, Sociology, Criminology, Art History, English, Music, Philosophy, Religious studies

Soft Applied: Education, Law, Business Studies, Health and Social care, Nursing, Socialjustice.

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QUESTIONS

- Explain the typology of disciplines as proposed by the Biglan-Becher. 10M
- Illustrate with suitable examples the Biglan-Becher typology. 10M

Short notes: (5M)

- Soft-pure and soft-applied disciplines,
- Hard-pure and hard-applied disciplines.
- Soft pure and hard pure disciplines

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