Towards a Mathematical System for Extension Education - II

Let A be a person in need of information from another person B. Let us assume that the quantum of information immediately required is a and also that it is available with B. a depends on long-term information needs of A which may be designated as b.

Thus,

$$a \propto b$$

or

$$a = kb \qquad \ldots\ldots\ldots\ldots\ldots\ldots(1)$$

where k is a constant depending upon earlier information available with B, assuming that B possesses all the information A needs.

Let c be the amount of information already possessed by A. Then,

$$a \propto c$$

or

$$a = lc \qquad \ldots\ldots\ldots\ldots\ldots\ldots(2)$$

where l is a constant. The constant l may be defined as information gap of A.

Substituting the value of a in equation (1), we get

$$lc = kb$$

or

$$b = c\,\frac{l}{k} \qquad \ldots\ldots\ldots\ldots\ldots\ldots(3)$$

The extent to which B can fulfil A's need depends upon A's information rather than skill (Kaul, 1984).

Let d be the amount of technical information available with B, and let e be his skill in transmitting this information. The skill of B in transmitting information enables him to apply it to the specific problem at hand and this prompts him to gather more information about it or its related aspects.

Then $d = me$ where m is a constant wich depends upon the extension worker B as he transmits the information to his client A.

The relationship between a and d is given by the degree of rapport as defined earlier (Kaul, 1984), wherein it was defined as the number of contacts needed to be sought from the client by the extension worker, upto the point the former starts seeking the company of the latter. The greater the degree of rapport, the closer will be d to a. The information needs in different societies differ according to the stages of their development; for example, such needs among Norwegian fisheries are far different from those in Bangladesh. Thus, in Norwegian fisheries, d approaches a at a faster rate than in Bangladesh.

Reference

Kaul, P. N. (1984) *Fish. Technol.* 21, 143

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