



Figure 5.5
Various ways to consider IN.

pertinence. In part (d), the area D stands for the *expressed* IN, that is, the IN the user managed to express in the formulated search request. Finally, in part (e) the area E corresponds to the expert's understanding of the user's IN. This understanding appears after the expert has read the user's search request. It is this *expert-perceived* IN that serves for the evaluation of the relevance of retrieved documents. Naturally, this type of expert evaluation, as well as any other non-

formalized expert evaluation in any other sphere, is of completely subjective nature. That is why many investigators consider the evaluation by a single expert insufficient and suggest that several experts should be engaged. For example, Lancaster noted that "it would certainly seem desirable to involve a group of judges and try to arrive at some group consensus as to which documents are relevant." (Lancaster, 1979). Apparently in this case each expert has his or her own imagined IN and performs the evaluation according to it. "Use of several judges," reasoned Lancaster.

Working independently to make relevance decisions, would at least give us a ranking of documents in terms of "relevance consensus." We could then express the results of a particular search in the following form:

1. Thirty-five percent of the documents retrieved were judged relevant by all five judges.
2. Forty-three percent were judged relevant by at least four of the five judges.
3. Sixty-two percent were judged relevant by at least three of the judges, and so on. (Lancaster, 1979)

The third meaning of the term "relevance" (as noted earlier) coincides with that of the term "pertinence," because some investigators use the term "relevance" in situations where "pertinence" is meant. However, the majority of developers do differentiate between these two terms. Thus the term "pertinence" can be considered as universally accepted. In this connection, Lancaster noted that "pertinence refers to a relationship between a document and an information need, the decision in this case is being made exclusively by the person having the information need" (Lancaster, 1979). To illustrate several points concerning pertinence, let us return to Figure 5.5.

The user judges the pertinence of documents; that is, the user determines whether they contain the required information or not. But what kind of information does the user recognize as being interesting? The answer seems simple. The user should judge all documents corresponding to the perceived IN to be pertinent. However, as we can see from Figure 5.5, the perceived IN can be beyond the limits of not only actual IN, but also of the ideal IN. Hence, having read documents from the area z , the user may consider these documents as non-pertinent because they do not reduce the uncertainty of the user's behavior algorithm. What about areas x and y ? Area y is a part of the perceived IN and a part of the ideal one, but it is not included in the actual IN. On the other hand, area x is a part of the ideal IN and the actual IN, but not the perceived IN. What is the importance of such a difference for the user? If documents containing information corresponding to these areas are presented to the user, they will reduce the user's uncertainty, thereby allowing the user to regard them as pertinent. Similar considerations are applicable to the areas k and l . Thus, any documents containing information corresponding to the ideal IN seem to be pertinent, because they can satisfy existing IN by eliminating the uncertainty. Nevertheless, this is not always the case. First, the information obtained by the