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ACTION RESEARCH

Action research is a qualitative research method that was established in the mid twentieth century based on separate work by Kurt Lewin at the University of Michigan Research Center for Group Dynamics & the Tavistock Institute. In 1946, Lewin developed a field-theory version of action research in order to study social psychology while the Tavistock Institute used action research to study psychological and social disorders among veterans of battlefields and prisoner-of-war camps. In general terms, action research is an iterative process involving researchers and practitioners acting together on a particular cycle of activities, including problem diagnosis, action intervention, and reflective learning. The method gained considerable traction in the social and medical sciences and in the 1990s began to grow in popularity for use in scholarly investigations of information systems. This paper hopes to provide background, context of the method amongst other research methods, and procedural use of the method itself including keys to successful implementation and limitations on use, while additionally highlighting a selected concrete example of action research in practice.

Action research varies in form, the most typical being a participatory method based loosely on a 5-step model [1] & responds to particular problem domains. The method produces highly relevant research results, because it is grounded in practical action, aimed at solving an immediate problem situation while carefully informing theory. It stemmed from the necessity of developing an understanding of the interaction of complex social organizations and their information systems under the guiding assumption that such systems cannot be reduced for meaningful study, and that in reality, human organizations, can only be understood and studied as whole entities. Further, the factoring of a social setting into variables or components, will not lead to useful knowledge about the whole organization, and thus complex social processes are thus best studied by introducing changes into these processes & observing the effects of these changes!

Action research then encourages researchers to experiment through intervention and reflect on the effects of their intervention and the implication of their theories. This change-oriented research approach, known as participatory action research, requires the adoption of an interpretivist viewpoint of research enquiry, an idiographic viewpoint of research enquiry, and acceptance of qualitative data.

An interpretivist viewpoint of research enquiry allows for social intervention into the research setting and in fact, necessitates that when the researcher intervenes, he or she becomes part of the study. As the researcher attempts to understand what is observed, his prior personal understanding will invade the recording of the observation and the deductions that follow [Kant, 1908]. The social meaning of action shared between researcher-subject and other subjects must then form part of the experimental data and this shared meaning implies that the cognitive framework of the researcher and the other subjects has to be considered.

An idiographic viewpoint of research enquiry proposes that each social setting involves a unique set of interacting human subjects and thus any meaningful investigation must consider the frame of reference and underlying social values of the subjects. Action research then "operationalizes" this idiographic method by incorporating the subjects into their research as powerful collaborators. Hence, the method always involves a team that includes researchers & subjects as co-participants in the enquiry and change experiences.

Finally, since action researchers adopt interpretive and idiographic views of research enquiry, they must also adopt qualitative data as a medium for their empirical observations/experiments. This "soft" data can sometimes be legitimately analyzed in its original state, with a limited set of mathematical and logical transformations (mapping, indexing and scaling). Qualitative analytical techniques like hermeneutics, deconstruction, and theoretical sampling are common companions to action research. Thus, in review, the key assumptions of the action research which stem from interpretivism, idiographic studies, and qualitative data are that social settings cannot be reduced for study, and that action in the form of direct intervention brings understanding.

In more concrete applied terms, there is a iterative structural cycle action researchers apply to studies undertaken which involve five phases per iteration. These phases include diagnosing, action planning, action taking, evaluation and specifying learning and all exist within a client-system infrastructure, which is a contract that attempts to specify everything between researchers, practitioners within system and client/host organization. This collaborative undertaking includes expectations of the study, boundaries for what is to be included or not in the study, how and where results may be disseminated, and responsibilities of parties.

During the diagnosis phase the researcher and clients will jointly identify the primary problems underlying organization's desire for change and develop theoretical assumptions that constitute a working hypothesis about the nature of the organization and its problem domain.

Next, the action planning phase involves making a plan specifying organization actions that should relieve or improve these primary problems. The discovery of the planned actions is guided by the theoretical framework which indicates some desired future state for the organization, and the changes that would achieve such a state. The plan establishes the target for change and the approach to change.

In the third phase, the researchers and practitioners collaborate in the active intervention into the client organization. There are different forms of intervention strategy that can be adopted. For example, the intervention might be directive, in which the research "directs" the change, or non-directive, in which the change is sought indirectly. Intervention tactics can also be adopted such as recruiting intelligent laypersons as change catalysts and pacemakers.

The evaluation of outcomes follows and during this fourth phase it is determined whether the theoretical effects of the action were realized, and whether these effects relieved the problems. If successful, the parties must question whether the action undertaken, among the myriad routine and non-routine organizational actions, was the sole cause for it, and if unsuccessful, a framework for the next iteration of the action research cycle, including adjusting the hypotheses, should be established.

Finally, the learning from the prior phase must be specified providing direct knowledge gained to groups. This specification includes restructuring of organizational norms to reflect the new knowledge gained by the organization during the research, and if unsuccessful, the additional knowledge may provide foundations for diagnosing in preparation for further action research interventions. The success or failure of the theoretical framework provides important knowledge to the scientific community for dealing with future research settings.

Some strategies for the successful application of the action research method include first most,

being sure that it is appropriate for the research question. If the study necessitates hard quantitative data, action research is not the method to use. Informed consent from subjects in the study is obligatory, and the theoretical framework must be present as a premise, otherwise the intervention action is no longer valid as research. Additionally, careful design and clear specification of data collection techniques when setting up the research infrastructure and revisiting this issue when planning action is important for the study to successful. The subjects will have key knowledge, both of theory and the practical setting, that is critical to the discovery of important aspects of the theory under test so the researcher should avoid dominating the diagnosis and action planning phases, and stress collaboration. During the study, action should continue iteratively until the immediate problem situation is relieved, as they are powerful evidence of the practical effectiveness of an underlying theory. Finally, when disseminating results, generalized statements cannot be made as the study has a representative sample of one, and thus they must be tempered with an interpretation of the extent of similar settings to which the theory can be expected to apply.

Action Research along with other qualitative methods such as grounded theory, ethnography, and case study has the particular strength in explaining what goes on in an organization, but because of its very hands on "business feel", gets some times mistaken from consulting. Action research is not consulting. It is motivated by its scientific prospects, perhaps epitomized in scientific publications where as consulting is motivated by commercial benefits, including profits and proprietary knowledge about solutions to organizational problems. Action research also makes a commitment to the research community for the production of scientific knowledge, as well as to the client where in consulting the commitment is to the client alone. Another difference between the two is that collaboration is essential in action research because of its idiographic assumptions. Consulting however typically values its “outsider’s,” unbiased viewpoint, providing an objective perspective on the organizational problems. In action research, the foundation for recommendations is a theoretical framework, where consultants are expected to suggest solutions that, in their experience, proved successful in similar situations. Finally, organizational understanding is founded on practical success from iterative experimental changes in the organization in action research whereas typical consultation teams develop an understanding through their independent critical analysis of the problem situation.

An example of action research "in action" can be found in [2][3]. The research setting involved two organizations: the special projects division of a consortium of universities, and a military-related government organization. The immediate problem situation regarded the failure to complete a systems analysis. The government organization had undergone two rather unhappy and failed attempts at analysis of their information requirements. A complicated database and analysis requirement made two earlier teams fail and the users had grown hostile and suspicious of analysts and designers.

The initial diagnosis discovered that the early projects were defeated by the large set of data classes, the large volume of data, and the high degree of volatility in the organizational environment. Due to time, money, and hostility to programmers, the team focused on the lack of interactive user validation of database designs, turning to prototyping theory as an initial framework. The action plan was to apply prototyping solely for the purposes of database design based on a formal group, an individual interview process and specification standards of components. The team then acquired hardware and software, and implemented the action as a group. Upon evaluation, the initial outcome met with only mixed success. The organizations’

management and users were positively impressed and motivated to pursue the proposed development approach. The technical process was less successful. There was a Herculean design and programming effort that couldn't make an approaching deadline. The programmers found that the specification for the prototype was largely a moving target that was impossible to achieve or track and were threatening to quit. In specifying the 1st cycle learning, it was determined that development process could not be continued in its initial form to project completion and some adjustments were needed. The theory was adjusted to be more inline with the findings and the structural cycle was reiterated and similarly adjusted until finally it worked and both the problem was solved and a new theory on the use of prototypes for capturing semantic database design was developed.

There are limitations to action research. As stated before, people think it is consulting if researchers are not explicit in following the tenets of action research when working in real-life situations. Additionally some people think its case study research, the difference being that action research is associated with intervention into the group being researched and thus the emphasis is more on reporting what practitioners do as opposed to what they say. These are pretty simple limitations to overcome and just involving educating people on the method itself. Some more serious limitations include its lack of a detailed guidelines for novice researchers and practitioners to understand and engage with in terms of design, process, presentation, and criteria for evaluation which complicates the publication review process, and thus makes the approach a tough choice for academics tied to the journal system of scholarly communication. Additionally financial research support from the client is common, and these payments only serve to further cloud the distinctions between action research and consulting, not to mention the ethical and professional problems which may ensue given the situation. Finally there exists a diminished ability to control the process and the outcomes of the research by the researcher due to the collaborative framework itself. Practitioners with serious problems typically drive the venue for action research so in reality scholars are not as free to "pick and choose" the problem they wish to investigate.

In summary, Action research aims at an increased understanding of an immediate social situation, with emphasis on the complex nature of a social setting in a particular domain. It assists both in practical problem solving and expands scientific knowledge, is performed collaboratively thus enhancing the competencies of the respective actors, and it responds directly to the pronounced needs for relevance in information systems research while providing a rewarding experience for researchers who want to work closely with the practitioner community. Finally it may be used in many research modes, both to generate new theory and to reinforce or contradict existing theory, and may be combined with other research methods for diversifying a research program.

Bibliography

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