Iterative Learning: A Way of Achieving Generalizability in Idiographic Research?

Developmental paper

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Abstract

In this developmental paper we discuss the thesis that iterative learning is a valid way for generalizing qualitative research findings derived from idiographic research. More precisely, we argue that iterative learning can be used for generalizing idiographic-qualitative research findings that were derived from investigating the 'extraordinary' instances of the population. We first outline the notions of iterative learning, idiographic research, and the extraordinary. Then, we continue to discuss generalizability in idiographic research. Finally, we make a link to Polanyi's principle of mutual control and argue that, when linked with iterative learning, idiographic research results can be accepted and become valuable intellectual commodities of the research community. The principle of mutual control is our starting point for further research and we welcome any suggestions, comments, and experiences on the effects of mutual control on the iterative learning process.

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Introduction

In this developmental paper we put forward the thesis that iterative learning is a valid way for generalizing qualitative research evidence derived from idiographic research. More precisely, we argue that iterative learning can be used for generalizing idiographic-qualitative research findings that were derived from investigating the 'extraordinary' instances of the population.

Iterative learning may be described as an emergent learning process. Only a small number of contributions acknowledge iterative learning as a key characteristic of (qualitative) research (e.g. Keegan, 2009, Cassell et al., 2009). Idiographic research refers to inquiries that are centred around individuals in their natural contexts (see Luthans and Davis, 1982). Prominent examples comprise Barnard (1938), Trist and Bamforth (1951), Mintzberg (1973), Pettigrew (1973), and van Maanen (1973). The aim of this type of research design is to understand "some *particular* event in nature or in society" (Allport, 1937, p. 22). It is thus a mode of inquiry that is often anchored in a subjectivist paradigm that assumes a nominalist ontology and usually an interpretivist epistemology (Luthans and Davis, 1982, Burrell and Morgan, 1979). Evered and Louis (1981) call it an *inquiry from the inside*, because in this mode of inquiry the researcher becomes an actor who is immersed in the research setting and interactively interprets contextually embedded emergent data and meaning.

Hence, the multiple instances of emergent and embedded data and meaning define the iterative character of the researcher's learning process in this type of inquiry. Such data and meaning would typically be seen as non-generalizable by more objectivist or extreme subjectivist paradigms mainly due to the particularity of the event and the focus on the individual. Morse (1999, p. 6), however, suggests that such data, when derived from comparable research problems, can be generalized from one setting to another, because "it is the knowledge that is generalized".

We go a step further than Morse by saying that in order to enhance achieving such generalizability of knowledge, researchers can make use of the conception of investigating the extraordinary. We have discussed elsewhere several reasons for investigating the extraordinary (see Dörfler and Stierand, 2009, Stierand and Dörfler, forthcoming, Stierand and Dörfler, 2011, Stierand and Dörfler, 2010). The main reason is that the extraordinary seems to be more representative of the phenomenon than the sample or even the population; a logic that is based on recognized studies by Maslow (1968, 1970), Gardner (1995, 1993, 1997), Csíkszentmihályi (1997) and Nakamura, Shernoff and Hooker (2009). In other words, we believe that investigating 'extraordinary people' has the effect that the knowledge that can be gained from the direct and descriptive research findings is likely to be of a more transferrable quality and therefore easier to use for generalizations and building theory, which numerous authors claim to be as vital for qualitative as it is for quantitative research (e.g. Campbell and Stanley, 1966, Larsson, 1993, Reason and Rowan, 1981, van Maanen, 1979, Gibbert, 2006). The reasons for claiming this is based on our experience and empirical evidence from elucidating the creative experiences of 18 world-class chefs and 17 Nobel Laureates.

Generalizability in Idiographic Research

In idiographic research the researcher aims to validate knowledge about a particular phenomenon by experiencing it without imposing a priori analytical categories. This stands in contrast to more traditional notions of inquiry typically associated with nomothetic research that Evered and Louis (1981) call *inquiry from the outside*. In this type of inquiry the researcher is

required to be detached from the phenomenon under investigation, aiming to achieve generalizable knowledge that is validated based on logic and methodical procedure (Evered and Louis, 1981). Inveterate objectivists often accuse idiographic research for being anti-scientific, because in their view it merely produces descriptions of the particular instances rather than general principles (Hermans, 1988). However, not all forms of idiographic research exclude the idea of general principles, but the ways of identifying them are different: Here general principles are not obtained through uncovering identical categories in a number of situations, but through in-depth exploration which will lead to a more general understanding of the phenomenon even when it appears in different contexts. (Cf Hayes, 2000)

As aforementioned, idiographic inquiries achieve research evidence that is typically of qualitative nature (Tsoukas, 1989). This means that the findings consist of subjective meanings and implicit logic, which makes them inadequate for quantification and thus problematic to use for establishing trends, quantitative comparisons and generalizations aimed at invariant relations among the variables that could explain complex phenomena, such as human behaviour (Argyris, 1979). Thus, it is impossible to provide statistical sound validation of the research results in idiographic research. The concept of validity has originally been developed in the context of experimental and quasi-experimental inquiries and three additional types of validity, which are important for both idiographic and nomothetic research, are further distinguished: internal, construct, and external validity. (Campbell and Stanley, 1966, Cook and Campbell, 1976, Cook and Campbell, 1979)

Internal validity is concerned with delivering logical reasoning that is convincing enough to defend the conclusions (Gibbert et al., 2008) and is thus typically associated with the data analysis phase (Yin, 1994, p. 105). Construct validity is concerned with the extent to which an inquiry is able to portray a truthful picture of reality and actually studies what it claims to be studying (Gibbert et al., 2008, Denzin and Lincoln, 2000) and is thus typically associated with the data collection phase (Gibbert et al., 2008, p. 1467). In idiographic inquiries we could therefore say that internal and construct validity ensure that the findings are credible if the research is appropriately executed. (cf. Wolcott, 1990, Eisner, 1991) Besides, both construct and external validity are primarily concerned with the generalizability of the research findings. The former is concerned with the generalizability of the more hidden and underlying constructs in the actual data of a study in order to produce general principles and the latter is concerned with the generalizability of these general principles to other research settings. (Cf Austin et al., 1998, p. 165)

External validity is what most researchers would associate with generalizability. In other words, external validity is concerned with 'the intuitive truthfulness of the theory' (cf Gibbert et al., 2008) about a phenomenon beyond the setting in which the phenomenon has been studied (e.g. Calder et al., 1982, McGrath and D, 1983, Gibbert, 2006, Eisenhardt, 1989, Scandura and Williams, 2000). In the context of qualitative research, Maxwell (1992) refers to the concepts of *internal* and *external generalizability*. The former is concerned with "generalizing within the community, group, or institution studied to persons, events, and settings that were not directly observed or interviewed" (ibid, p. 293) which corresponds to the sample-population relationship from statistically driven inquiries. The latter is concerned with "generalizing to other communities, groups, or institutions" (ibid, p. 293) which corresponds to generalization to other contexts or other phenomena.

For many qualitative researchers it seems that internal outranks external generalizability, because they may rightly argue that the value of their inquiry depends "on its lack of external generalizability in a statistical sense", because they portray "an account of a setting or popu-

lation that is illuminating as an extreme case or 'ideal type'" (ibid, p. 294). But there are some extreme cases or ideal types - the extraordinary - that not only allow for internal but also for external generalizability, because they are representative of a phenomenon (e.g. creativity of world-class chefs and Nobel Laureates).

In other words, by investigating these extraordinary people they teach us about a phenomenon of creativity and we iteratively learn from case to case and from context to context about it so that we can recognize the essence of the phenomenon even when it appears in very different contexts. We learned more and more about the phenomenon of creativity going from chef to chef, constantly revising the totality of our knowledge about creativity and continued this then from Nobel Laureate to Nobel Laureate. Through these iterative learning steps we gained deeper and deeper understanding of creativity getting (mostly unconsciously) rid of what was specific to a particular chef or restaurant, then to particular Nobel Laureates, their workshops, their disciplines, etc. So the multiple instances that are investigated and then the multiple contexts iteratively purify the understanding of the phenomenon of what is specific leading to deeper and deeper understanding of the fundamental principles.

Conclusion

The Iterative learning process is not unlike the work of a consultant or coach who works for certain kinds of organizations, for example hotels, and after a while achieves a better understanding of hotels in general, even though (s)he would not be able to justify this increased understanding by any objective means. In other words, the knowledge that is gained is not limited to a specific demographic, but can be generalized to any setting in which the phenomenon under investigation is a concern (Applegate and Morse, 1994), because "it is the knowledge that is generalized" (Morse, 1999, p. 6). Furthermore, working with the 'best' hotels (or car manufacturers, or universities, etc.) will lead to better and probably somewhat faster understanding of their essential structures than looking into some kind of 'average'. This observation is widely accepted and often considered almost trivial. However, as academic researchers we usually do not make use of this idea as we cannot provide 'proofs' of validity and thus generalization in a way that would be considered academically rigorous. We often find it easier to give up on the claim of generalizability and accept that what we have learned applies only to that single instance that we have been investigating at the time and when we have multiple instances then we restrict our findings only to those that we have covered. We believe that the main reason for this is that the deeper and deeper understanding of the primary principles leads to increasingly tacit knowledge – and we really have no way of providing any evidence for tacit knowledge. However, we believe the above observation to be sufficient ground for claiming the generalization of knowledge through the phenomenon of iterative learning. Combined with the Polanyian (1966, p. 72) principle of mutual control, idiographic research results can be accepted and become valuable intellectual commodities of the research community, regardless whether 'more objective' studies from the outside will be following. The principle of mutual control is our starting point for further research and we welcome any suggestions, comments, and experiences on the effects of mutual control on the iterative learning process.

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