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Editorial

Current research topics at the Leibniz Institute for Psychology Information (ZPID)

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The overall aim of this issue is to provide a brief insight into selected current research work at the Leibniz Institute for Psychology Information (ZPID), which has been undergoing a reorientation since mid-2017 to become the central, research-based information infrastructure for psychology.

Founded in 1972, ZPID is the central, supra-regional information infrastructure for psychology in the German-speaking countries. It is a member of the Leibniz Association and is institutionalized as a legally independent institution under public law of the state of Rhineland-Palatinate. The institute is located on the campus of the University of Trier.

The ZPID is committed to the idea of open science. Since its reorientation in 2017, ZPID has focused on becoming a public open science institute for psychology. As a research-based infrastructure facility, it supports the entire scientific work process, from gathering ideas and searching for relevant literature to documenting research, archiving data, and finally, to publishing results and is based on ideal research cycles. The basic research focus has been on "research literacy." Building on this research foundation, in January 2020, the ZPID was expanded to include two new research areas, namely "research syntheses" and "big data in psychology".

The PubPsych search portal is one of ZPID’s central services, and it can be used free of charge. PubPsych provides access to the bibliographic database PSYNDEX, the psychology repository PsychArchives, the data management system DataWiz, and the open access publication platform PsychOpen GOLD. Since the beginning of 2020, further infrastructure services for study planning, preregistration, data collection, and data analysis are under development. A detailed strategy paper outlining ZPID’s current and future services (up to 2025) is available to interested readers in an open access publication (in German).

The overall goal of ZPID is to become a universal provider of research-based infrastructure services in psychology and related fields by 2025. The ZPID supports open, transparent, replicable, and accessible research in all phases of the research process. The corresponding services are divided into the following three infrastructure areas:

Information and Research Services. This area provides infrastructure services for information searches, and it maintains and makes available research in data sources (publications, tests, data, etc.) . The extensive bibliographic database PSYNDEX, for example, which has been continuously updated since 1977, is curated and maintained by the Information and Research Services department and is used as a data source for ZPID’s own scientometric research. The article by Bittermann, Greiner, and Fischer (2020) in this issue illustrates a research project that analyzes the research interests of men and women separately over the
last 50 years, based on PSYNDEX entries and using innovative text mining approaches. It shows that gender-specific differences are only reflected in very few areas of psychology. In the course of projects such as this one, PsychTopics was developed, a freely accessible online application for exploring focal points and research trends in psychology (Bittermann, 2019).

Study Planning, Data Collection, and Data Analysis Services. This infrastructure area represents a strategic extension of the ZPID and is currently undergoing wide-ranging expansion. Services for study planning, preregistration of empirical studies, data collection, and data analysis are being developed and made available to the research community on a long-term basis. These services are based on the articulated needs of psychology in the German-speaking world (Müller, 2018) and their further development is fueled by our own accompanying research (e.g., Müller, 2019).

As part of the preparations for the evidence-based design ZPID’s data collection services, Burgard, Bosnjak, and Wedderhoff’s (2020) contribution to this issue analyzes the effects of repeated participation in questionnaire studies on the response behavior to sensitive questions by means of a meta-analysis. Only minor effects of previous survey experience are found in subsequent surveys. Burgard et al.’s (2020) findings substantiate Bruder, Göritz, Reips, and Gebhard’s (2014) call for the establishment of an online psychology laboratory, complete with participant pools that are available to researchers; this is now one major focus of ZPID’s Study Planning, Data Collection, and Data Analysis services.

Archiving and Publishing Services. ZPID provides services for the long-term archiving of digital research objects (e.g., data) and for the publication of scientific publications. Research deriving from this infrastructure area focuses on topics such as user-friendly research data management concepts (Blask & Förster, 2019; Förster, Blask, & Lemaire, 2019) as well as the implementation of open science practices using tools that support the data management process (Weichselgartner, 2017).

In the three specific research areas of ZPID, topics are pursued that have a stronger basic research focus than the application-oriented research outlined above:

Research Literacy. The Research Literacy department is closely linked to ZPID’s long-standing core competencies in the areas of “information behavior and information literacy” (e.g., Chasiotis, Wedderhoff, Rosman, & Mayer, 2019; Rosman, Mayer, & Krampen, 2016) and “epistemic beliefs and evidence-based thinking” (e.g., Rosman, Mayer, Kerwer, & Krampen, 2017; Rosman, Mayer, Merk, & Kerwer, 2019). Two articles in this issue illustrate the current range of topics. Kerwer and Rosman (2020) explore the question whether epistemic change in short-term interventions, e.g., changes in individual knowledge-related beliefs induced by experiments, follows the same principles that are assumed for the natural long-term development of epistemic beliefs. The authors show that this does not seem to be accurate in the case under consideration, and they offer explanations and derive practical implications for the promotion of epistemic change. The contribution by Wedderhoff, Chasiotis, and Rosman (2020) explores the question of the extent to which the search for information—in this case health information—depends on self-assessed and objective health and cognitive skills. The authors were able to show that, in addition to content expertise in the chosen subject area and objectively measured cognitive ability, the accuracy of self-assessments makes an incremental contribution to explaining the preferences for information sources.

Research Syntheses in Psychology. The second research area focuses on methods of research synthesis in psychology, including systematic reviews and meta-analyses. Two articles in this issue provide a brief
insight into the range of current topics. In their systematic review, Wedderhoff and Bosnjak (2020) illustrate the attention that quality assessment systems for primary studies have received to date in the context of meta-analyses of psychology research. Specifically, they show that despite the garbage in, garbage out issue that has been discussed for decades (Eysenck, 1978), only a fraction of the meta-analyses considered take into account the quality of the incoming primary studies. This finding can be partially explained by the lack of established instruments for quality assessment in psychology.

The aim of the contribution by Steinmetz, Bosnjak, and Isidor (2020) is to illustrate, using an example from organizational psychology, an innovative meta-analytical approach—meta-analytical structural equation models (MASEM; Cheung, 2014)—which is still seldomly applied. According to the authors, MASEM holds great potential, especially for psychological model testing on the basis of meta-analytical data sets and in particular for the specification and testing of complex causal structures and the analysis of mediating processes. The authors also present a multi-level approach to address the problem of multivariate effect size dependencies. The paper concludes with a summary of the methodological problems still to be solved.

Big Data in Psychology. The third research area, “Big Data in Psychology,” deals with the question of how large and dynamically generated data sources, e.g., based on text corpora, from Internet-based behavioral traces (e.g., social media data) as well as movement and geodata, can be used to answer substantial scientific questions in psychology and related disciplines. Batzdorfer, Steinmetz, and Bosnjak (2020) use the example of radicalization research to discuss which goals, data sources, and methods are chosen in digital trace data studies and analyze their similarities and differences to traditional studies such as questionnaire surveys or experimental studies. In spite of the enormous potential of big data analyses, with psychological explanatory approaches providing a valuable starting point for the theory-based use of big data, Batzdorfer et al.’s (2020) application demonstrates the (still) marginalized position of big data research in psychology.

The articles in this issue highlight current, ongoing research at ZPID, and this will be continuously supplemented by further research from the three infrastructure service departments and the three research departments. Interested readers can view the full range of ZPID’S current projects and services for psychology here: http://www.leibniz-psychology.org/.

References


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