Creating impact in citizenship education by transformative research.
Indications for professionalisation

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- When scholars are expected to generate impact on society, they must meet both social responsibility and academic standards.
- Particularly normative research is at risk to reproduce unconscious patterns, hegemonic perspectives, and epistemic violence.
- For creating legitimacy and ensuring integrity, it is necessary to make paradigmatic positionings transparent, to reflect research structures, and to connect heterogeneous knowledge stocks.
- Academic impact can address to different fields and actors of society, including politics and academia itself.

Purpose: The article reconsiders and explicates the role of academia within and for society and suggests quality standards for normative research.
Approach: The article analyses and discusses transdisciplinary procedures for citizenship education research in democracies.
Findings: Paradigmatic decisions concerning ontology, axiology, epistemology, and methodology need to be made consciously and transparent. This professionalisation is necessary to ensure that the requirements of academic knowledge are met. Furthermore, the social responsibility of research needs to be acknowledged and methodologically taken into account.
Implications: The article suggests three main quality aspects for normative research: transdisciplinarity, transparency, and reflection. It emphasises the ethical and epistemological challenges of research in democracies. Hence, there has to be a close focus on structures and power during the research in order to not just create any impact, but good impact.

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1 Introduction: Creating impact as a task of social sciences and educational research

While awareness has spread that social sciences research is not carried out in a vacuum and by 'objective' researchers, the consequence of understanding research as a social practice is less common. This understanding, however, is the prerequisite for creating 'good' impact, as it is regularly the aim of educational research. How impact is achieved, legitimised, and improved is the subject of various current debates (cf. BMBF, 2016). Impact is commonly understood as efficacy, as causing effects on situations or people. Within academia, the impact factor is a popular measure to provide an indication of the effectiveness of research. According to the economic origin of the term, this interpretation of impact focuses on quantifiable measurability logics. These are sometimes critically discussed and further developed, e.g. with regard to the recognition of different publication formats (cf. e.g. Franzen, 2015). In this article, the aim is, however, to work on a different understanding of academic impact, one that focuses on 'good' impact and therefore is characterised by participatory, transparent, and reflexive practices.

The main interest of educational research is to understand and evaluate individual and collective educational and transformation processes in order to improve them or initiate new ones. Whether an approach is successful is often tested by evaluative approaches. They are valuable inasmuch as they provide findings on certain forms of impact – but they make no statements on the underlying mechanisms or on content (Bohlmann, 2016). Therefore, an omnipresent measurability logic of "learnification" dominates which is limited to testable knowledge and, under the guise of supposed neutrality, claims to shape education as "strong, secure, and predictable, and [...] risk-free at all levels" (Biesta, 2014, p. 3).

This development is especially alarming in the field of citizenship education, as the objectives go beyond the level of formal knowledge and refer to the understanding and application of normative concepts. Here, research is not limited to describe and explain 'what is' but also 'how it shall be' and thus transgressing Max Weber's notion of scholarly competences. It is therefore particularly necessary to include different perspectives in order to prevent dogmatism and authoritarianism when aiming at impact. Therefore, not only gaining results, but foremost legitimising research processes is a central task. In his remarks on discourse ethics, Habermas has already referred to the necessity of respecting the principle of universalisation in moral discourses, which can only be fulfilled if all those 'affected' take part in the discourse, at least by representatives (Habermas, 1983, pp. 53–125).

A current example is the challenge for research to bridge the gap between society and civic education in order to counteract a "failed citizenship". According to Banks, the desired impact of civic education is that students "become efficacious and participatory citizens in multicultural nation-states" (Banks, 2017, p. 366). This has not been achieved with the existing means, respectively they have prevented it. If effectiveness were the only relevant dimension, authoritarian-indoctrinating or economic-manipulative logics for impact would appear most promising – but, of course, it would be paradoxical in itself to approach learning democracy in this way. Promoting democratic awareness and activity can only be convincing if done with democratic means. Hence, these principles have to be considered by research and evaluation in order to create impact beyond numbers. Furthermore, impact is not limited to students' learning outcomes but can address different spheres and actors (e.g. teachers, society, academia, politics).

For creating appropriate research designs, existing approaches can be further developed and recombined. This paper can serve as an entry point, framework and orientation for researchers interested in societal relevant issues. However, an open but central task is to develop quality criteria for normative research as prerequisites for creating academic as well as social impact. I argue that three aspects are fundamental:

- Transdisciplinarity: academic expertise needs to be complemented by praxis knowledge and experiences.
- Transparency: the paradigmatic positioning is to be elaborated, reflected, and disclosed.
- Reflection: researchers need to reflect on methods and subjects, but also on themselves.

2 Transdisciplinarity: opportunities and risks of the interdependence of academia and society

Before delving into impact generating strategies, it is necessary to take a step back and reflect on the role of research(ers). Since the 1990s, there has been a growing call for academia to provide relevant findings for society. The expectations are extensive: "legitimisation, persuasion, delay or avoidance of decisions, justification of unpopular decisions, mediation of disputes and clarification of conflicting interests" (Weingart, 2001, 142f., translation here and in the following by K.M.). This decentralisation is embedded in a general devaluation of explicit top-down political measures and the associated upgrading respectively employment of citizens. This development can be perceived as a neoliberal shift of responsibility towards the individuals who are now supposed to take matters into their own hands (cf. e.g. "The entrepreneurial self", Bröckling, 2007). Yet, from a benevolent perspective, it could be spawned by the critical awareness that a monolithic truth imposed from above is not conducive to the principles of liberal democracy and therefore leads to the willingness to share the power of definition and action. Whatever the cause, the concept of the 'active citizen' that is becoming popular at this time is a witness of this development. Consequently, it also addresses the self-conception of scholars as citizens and leads to an increased pressure to justify their work. If an activity is publicly funded, it should also benefit the public good, so one of the political ideas. The question of agenda-setting is raised as well: is research allowed to retreat into the much-cited ivory tower or should it not (at least also) address current social challenges and contribute to their solution?

There are two opposing reactions to this. Some scholars support this development and gladly put their research activities at the service of society; some even call for the corresponding restructuring of the academic system (cf. Schneidewind & Singer-Brodowski, 2014). They welcome the disenchantment of the myth of the lone intellectual genius and emphasise the advantages of cooperative knowledge building (Montuori & Donnelly, 2019).

The other side stresses the danger of the curtailment of academic freedoms, even the epistemological narrowing of scholarly research by political considerations of utility. Furthermore, academic and non-academic knowledge could not be distinguished anymore and society and academia became depoliticised. A supposedly homogeneous academic expertise would shorten political discourses by "violence of facts" and degrade itself to an instrument of political interests (Strohschneider, 2014). Additionally, media would boost the distortion of academia by exposing scientific results to "simplification, in the worst case pollution" (Weingart, 2001, p. 233) and by exposing scholars to the temptations of public prominence. All in all, both the autonomy and the neutrality of research are seen as endangered.

Both sides' arguments have their justifications and pitfalls. However, the unhelpful tendency to claim sole representation including an either-or logic shall be overcome here. The aim is to identify critical aspects and develop constructive responses.

2.1 Democratising research designs

The term transdisciplinarity has nowadays become widely accepted. Yet, the distinction between interdisciplinary and transdisciplinary should be pointed out (for an overview of various ways of usage see Völker, 2004). Here, the etymological understanding is chosen as it is the clearest for

avoiding "misleading label[s]" (Gutschmidt, 2004, p. 64): while interdisciplinary research concentrates on cooperation and exchange between academic disciplines, transdisciplinary research includes the involvement of partners from practice and thus leaves the classical boundaries of purely academic knowledge production. Multidisciplinarity, on the other hand, simply means that research is carried out on the same topic from different disciplinary directions without striving for a particular exchange. Using the terms synonymously blurs this important differences concerning the participating actors and the knowledge exchange.

Transdisciplinary research designs aim at generating socially relevant knowledge through interdisciplinary cooperation and co-production with partners from practice. The discourse is marked by the developments of new methodological approaches, such as 'post-normal science' (Funtowicz & Ravetz, 1993), 'mode-2-science' (Gibbons et al., 1994; Nowotny, Scott, & Gibbons, 2001), or 'mode-3-science' (Carayannis & Campbell, 2012). The starting point and concerns of these approaches are social issues for which solutions/directive decisions/practices need to be developed. Therefore, they claim that new, democratic research structures need to be established, which consider the concerns of those 'affected' by research results. Scholars alone can neither represent the various perspectives and interests nor make reliable predictions about social developments.

Therefore, Funtowicz & Ravetz (1993) combine a (predominantly) descriptive level of determining the degree of conflicting interests and systemic uncertainties with a normative level concerning adequate methodological approaches. They distinguish between three levels of socially relevant knowledge: applied science, professional consultancy, and post-normal science. While the first two operate on a 'technical' level and focus on academic expertise, the third demands constructive stakeholder involvement. They justify this 'post-normal' necessity with the degree of uncertainty and controversy: "when uncertainties are either of the epistemological or the ethical kind, or when decision stakes reflect conflicting purposes among stakeholders" (1993, p. 750). Hence, creating impact is not to be separated from the perception and definition of the founding problem: "The definition of the purpose is a matter of the framing of the problem, which is a democratic—deliberative, inclusive and participatory—concern, and consequently the judgement on quality is also, in this particular sense, a democratic concern" (Strand, 2017, p. 291).

Due to e.g. postmodern, global, and digital systemic uncertainties and to heterogeneous norm preferences, it becomes more and more likely that a societal issue demands transdisciplinary research. Furthermore, the general trust in academia and in purely technological solutions has been shaken (Beck, 1986). The logical development is the "institutionalisation of reflexive mechanisms in all functionally specific sub-areas of social order" (Weingart, 2001, pp. 16f.). As social diversity can only be insufficiently covered by a single scholar, including various co-producers of knowledge is a means for increasing representation and legitimisation. The politicisation of academia and the admission of its already political entanglement are therefore logical developments in the course of the progressive democratisation of society (see also Weingart, 2001, p. 329), which calls for methodological responses.

2.1 Quality criteria of transdisciplinary research

Thus, the integration of heterogeneous knowledge has both political and epistemological significance. Hence, "it becomes necessary to transgress boundaries between different academic cultures" and "disciplinary standards of knowledge production are sacrificed" (Hirsch Hadorn et al., 2008, p. 3). To nevertheless meet academic standards, new quality criteria have to be developed.

So far, transdisciplinary research designs are often evaluated according to disciplinary quality and success criteria. This is problematic because they do not fully correspond to any discipline. At the same time, their integrative power of different strands cannot be grasped (Hornbostel &

Olbrecht, 2007; Kuhberg-Lasson, Singleton & Sondergeld, 2014). Building tradition and consensus on quality criteria for transdisciplinary research is difficult already due to formal conditions. Their objects of research are often limited to narrowly defined contexts, they are usually carried out in project work (i.e. not on a long-term basis), and cross-disciplinary publication opportunities are scarce (Kueffer et al. 2007). Most of the relevant publications are compilations of case studies that provide valuable insights into concrete research practices but lack an overall view of quality and justification. However, since Pohl & Hirsch Hadorn started to suggest design criteria, the discourse on research quality has become lively. In their subsequent article (2008), they identify complexity, diversity, intermingling of abstract and contextual findings, and an orientation towards the common good as central principles of transdisciplinary research.

Most recently, Groth & Ritter emphasised to not only focus on results, but also on processes and structures, specifically "the internalised rule systems, symbolic orders, knowledge hierarchies and objectivations that are implicitly or explicitly affirmed and further negotiated within collaborations" (2019, p. 7). Therefore, 'hard' and 'soft' factors are relevant: the distribution of resources, spatial proximity, and time constraints as well as general questions of a working atmosphere of trust and respect and the willingness to exceed the logic and outcome expectations of one's own discipline or social positioning. The goal is not "a temporally limited mode of interaction" (Groth & Ritter, 2019, p. 11), but genuine collaboration built on cooperative and reflective attitudes. Bendix et al. (2017) also point to the necessity of dealing with the 'human factor' and recommend procedures to build trust even in difficult structural conditions.

Defila & di Giulio (2018) stress the need to select participating stakeholders carefully and not to involve 'anyone', but 'experts' from different fields. For delineating practice and academic parties, they suggest "certified and non-certified experts". The scope and nature of collaboration should be determined by research and practice interests as well as by available resources. It is therefore not always 'the more, the better'. Wright et al. (2010) distinguish between non-participation (order, instrumentalization), pre-participation (information, consultation, involvement), and participation (co-determination, partial decision-making competences, decision-making power). The model is completed by 'more than participation' which is characterised by 'self-organisation'. All of these levels may be suitable, the task is to find and negotiate the adequate levels for specific stakeholders in specific phases of the project (Unger, 2012).

Moreover, neither the academic nor the practice side is homogeneous, but comprises different groups and perspectives. Therefore, it is necessary to take a close look at the specific group of stakeholders to ensure that internal differentiations are not neglected. The particular interests and power positions of actors are an important aspect for understanding the field and for designing research processes. A systematic analysis helps to identify problematic constellations at an early stage. Despite the claims for cooperation regarding actors, structures, and knowledge, transdisciplinary research is not about egalitarianism and unambiguity. Rather, the aim is to find a balance which appreciates differences but at the same time allows understanding (cf. Graf et al., 2018, p. 18), i.e. knowledge generation through, but also despite, heterogeneity.

The preceding discourse refers mainly to formal, methodical aspects. What constitutes quality criteria with regard to content will be discussed in chapters 3 and 4. First, the previous considerations are applied to the field of citizenship education.

2.3 Transdisciplinarity and citizenship education

Transdisciplinary approaches were predominantly applied for political, geographical, environmental, and technological issues – corresponding considerations have so far been rarely applied to genuine educational contexts (Schaller, 2004). Yet, the notion that transdisciplinarity only became popular in the 1990s and was created the above-mentioned fields is misleading. The first time transdisciplinarity gained popularity was in 1970 when the OECD conference

'Interdisciplinarity: Problems of Teaching and Research in Universities' took place in Nice. In that context, Erich Jantsch proposed an educational innovation system which consisted of an empirical, a pragmatic, a normative, and a target level. While thoroughly delimitating most of the prefixes used to date, he defines the role of *trans*disciplinarity as "[t]he coordination of all disciplines and interdisciplines in the education/innovation system on the basis of a generalised axiomatics (introduced from the purposive level) and an emerging epistemological pattern" (Jantsch, 1970, p. 411). He thus referred to the necessity of a universal normative foundation and the procedural nature of knowledge generation. The following discourse revolved around the distinction between 'training' and 'teaching'. It criticised academia for promoting training, understood as the acquisition of fragmented knowledge. Since this contradicted the declared goals of university teaching, transdisciplinarity was seen as an attempt to restore these goals (critical on this: Kockelmans, 1979).

The tension between particularity and overarching knowledge is still relevant today and is still being negotiated within disciplinary and fragmented structures. The field of citizenship education is already genuinely interdisciplinary, since at least two subjects are generally interwoven: basically, political sciences and didactics. Yet, also economics, sociology, history, cultural studies, or psychology contribute to relevant knowledge for civic education. Even though based on the idea of intertwined disciplines, the implementation of this concept in schools often remains in the sequence of disciplinary units. In educational research as well as in practice, interdisciplinary cooperation and knowledge can be expanded.

Transdisciplinary research with decisive participation by non-academic actors has been implemented even less. This may not be necessary to generate formal or purely academic knowledge. However, as soon as socio-political normative questions, such as democracy, justice or social cohesion, or concrete implementation requirements are at stake, the need for democratisation arises: "These concepts are therefore of a political nature; their use and definition require societal deliberation" (Wittmayer et al. 2014, p. 467). The political nature becomes obvious when citizenship education is about identifying "important social values and pathways for a desirable future" (Miller, 2013, p. 285). Who identifies which values and pathways for concrete social situations is a socio-political issue - but also affects research. This is not problematic in itself as scientific plurality is essential to avoid homogenised expertise and epistemic violence. Yet, in order to justify the claim for the production of academic knowledge and impact, it is crucial to make paradigmatic perspectives and research structures transparent.

3 Transparency: paradigmatic decisions

For creating 'good' impact, first, transdisciplinarity was discussed as a methodological foundation regarding formal principles of organizing research more democratically. The next step is responding to ontological, axiological and epistemological dimensions of transdisciplinary research. Here, gaining and establishing transparency regarding the underlying paradigms is necessary both for the coherence of research and its objectives as well as for interdisciplinary communication. In addition to the material and social aspects of transdisciplinary research, it is essential to be able to link the content claims of different actors appropriately. It is necessary to order the heterogeneous knowledge stocks and to relate them to one another with the aim of "cognitively integrating knowledge from different disciplines and practical references" (Bergmann & Schramm, 2008, p. 10). This aim addresses practical-methodical as well as fundamental-epistemological aspects.

However, these aspects often remain non-transparent for the theoretical foundation and methodical implementation of transdisciplinary research. Within this discourse, the integration of knowledge is either assumed to be creative and natural or problematic because of the inescapability of disciplinary dependencies. Surprisingly, the actors of research themselves are

rarely taken into account. As it is humans who conduct research, the integration or at least organisation of heterogeneous knowledge appears to be an everyday business. Hence, self-reflexivity as well as theories of learning, dealing with the cognitive processing of different information, and its corresponding translation, might facilitate the formulation of theories aiming at transdisciplinary knowledge integration (or engaged co-existence).

Yet, the development of corresponding methodical instruments is progressing. For instance, with 'constellation analysis' [Konstellationsanalyse] "different problem perceptions, knowledge bases and solution approaches can be related to each other. Constellation analysis thus forms a bridge between various disciplinary and non-scientific perspectives based on a common object of investigation [...]" (Schön & Kruse, 2007, p. 15). Ropohl (2011) calls for the development of a "core vocabulary" that is comprehensible for heterogeneous participants, for working with "multidimensional term analyses", and for using "multidimensional multi-perspective intertwining models", especially system-theoretical ones. To what extent, however, system theory is and can be genuinely intersystemic, i.e. it rejects disciplinary logic, remains open and cannot be clarified here (sceptically Hitz, 1998; optimistically Ropohl, 2005). These questions are also addressed, e.g. by intercultural communication or sociological theories of translation.

An important question is how deep the integration and collaboration shall be. At this point, Luhmann's division into temporary, occasional, and transdisciplinary interdisciplinarity can be useful (Luhmann, 1990/1992, pp. 457ff). Luhmann's terminology of inter- and transdisciplinary follows a different logic from the one presented above. *Occasional interdisciplinarity* refers to sporadic impulses from outside, e.g. initiated by conferences or publications, and manifests e.g. in the adoption of terms. Research initiated by 'real-world problems', as is often the case with transdisciplinary approaches, is then called *temporary interdisciplinarity*:

> "The central idea of this concept of temporary interdisciplinarity is: that encrustations must be avoided, which at the same time would also encapsulate themselves against the then again heterogeneous developments in the respective disciplines due to the respective interdisciplinary achievements, mixed languages and cooperation successes" (Luhmann, 1990/1992, p. 458).

However, Luhmann attests these two forms of interdisciplinarity a "low level of theory", since there is "no theoretical integration of the disciplines" (Luhmann, 1990/1992, p. 642). As an alternative, he proposes "to look for the starting point in *transdisciplinary* subjects and from there to opt for one of the disciplines" (Luhmann 1990/1992, p. 461). Hence, here the starting point is not a problem but a paradigm:

> "A third way is taken by projects that could be described as transdisciplinary. [...] In all these cases, it is first a matter of a distinct paradigm (feedback, thermo-dynamically open systems, information as selection) that is relevant for more than one discipline. Unlike normal disciplines, such *trans*disciplinary subjects are founded from the outset from a paradigm" (Luhmann, 1990/1992, p. 459).

Following this claim, socially involved research projects need to be built on a paradigm which should be made transparent. The question is what could be a suitable paradigm, especially for social sciences. Before making a suggestion, it is necessary to clarify what actually a paradigm is. The academic publication landscape is strikingly ambiguous and nonuniform in its use of this term (Fischer & Hoyningen-Huene, 1997 provide a collection of the usage within different disciplines). Linguistics offers a helpful systematisation: while *syntagm* is a formally organising (combining) scheme, *paradigm* is a scheme for organising (selecting) content. Paradigms thus create an overarching order and direction for research: they differentiate between relevant and irrelevant,

between acceptable and unacceptable, and provide further selection criteria and directions of interpretation.

Thomas Kuhn introduced this term into the philosophy of science (Kuhn, 1962). He distinguishes between 'pre-normal' (paradigmless) science and 'normal' science, which is characterised by consensus on a paradigm. This "defines scientific disciplines" both content-wise and methodologically: "Paradigms [provide] the scientists not only with a map [...], but also with some essential guidelines for the production of the map" (pp. 116; 122). Later, he summarises this use of the term as "disciplinary matrix". Additionally, he conceptualises a third phase, which he calls 'extraordinary science'. In this phase, the consensus breaks down by revealing anomalies which cannot be explained or solved by the paradigm. Then, a new paradigm emerges that promises better solutions and cognitions. Since different paradigms are not compatible with each other, this crisis leads either to a general rejection of the old paradigm or to the formation of groups or schools within academia. Even though Kuhn referred his considerations to natural scientific research, both the term and its concept have been adopted into other disciplines and contexts (Hoyningen-Huene, 1989).

In social sciences, a well-established, and mostly conflictual, distinction is made between the qualitative and quantitative paradigm; in recent years, mixed methods have been added (Baur et al. 2018). However, the object of this classification is ultimately the type of data, not the type of research (Biesta, 2010), at least the discussion is often shortened to this. Lincoln & Guba have undertaken a comprehensive systematisation of paradigmatic orientations which combine theoretical and empirical perspectives and implications (1994; 2003; 2005). They distinguish between positivist, postpositivist, critical, and constructivist approaches. They then assign specific ontological, epistemological and methodological approaches and preferences in a matrix. Lastly, they have added the axiological dimension to their systematics, i.e. the values that are central to the formulation of objectives and the conduct of research (Lincoln & Guba, 2005).

In research projects, the normative framework is often rather implicit – certainly in 'classical' research, but also in transdisciplinary projects. Here, in most cases, the aim is to 'improve' things or conditions or structures; Ropohl even identifies the "suitability for practice and world view orientation" as the desired goal (2011, p. 288) without reflecting any normative level. This functionalist approach is not sufficient and provides well-founded grounds for criticism. Furthermore, it is questionable whether the impact is really an improvement and if so for whom, as this 'pragmatic' approach tends to reproduce existing logics instead of creating something new. For civic education, Eis & Salomon diagnose an "exaggerated stability orientation of classical approaches" (2014, 12f).

Thus, if heterogeneous knowledge is to be combined, it is important to clarify and communicate the respective paradigmatic perspective. This is necessary to evaluate the scientific coherence of the argumentation and the impact connected to it. While the established paradigms mainly derive from ontological assumptions, the paradigm presented in the next chapter takes its starting point at the axiological level. This is intended to broaden the spectrum, but also to highlight the importance of the values underlying research – though rarely made transparent, they have a decisive effect on research and the generation of impact.

3.1 Axiological transparency and the transformative paradigm

In contrast and in reaction to unconscious positionings, Donna Mertens demands that "all researchers should be cognisant of the philosophical assumptions that guide their work" (Mertens, 2007, p. 212). She adopts the four dimensions of Lincoln & Guba (2005), but distinguishes four other paradigms: the postpositivist, the constructivist, the pragmatic and the transformative (Mertens, 2014). While 'postpositivist' and 'constructivist' can be associated with quantitative and qualitative approaches, the pragmatic and the transformative paradigm both aim at social impact.

Research within the pragmatic paradigm is axiologically oriented towards the researcher's values and methodologically open as long as the methods serve these goals. Thus, mixed methods and mixed models are used for data collection, evaluation, and theory building. What is striking is the strong orientation towards the researcher him/herself. He or she alone (respectively within specific structures and dependencies) decides on goals and suitable methodical procedures – without being compelled or encouraged to engage in comprehensive and fundamental reflection.

The critique of subjectivism and opportunitism is thus obvious. In addition to the non-transparency of personal presumptions, social norms are unconsciously reproduced in this way. Foucault conceptualises these mechanisms as governmentality and corresponding self-management practices (cf. summarizing Foucault, 2000). More fundamentally, Horkheimer links and criticises pragmatic approaches with a capitalist-benefit-oriented economy (Horkheimer, 1967/1991). Both Foucault and Horkheimer refer to contextualised observations; the general mechanisms of the reproduction of unconscious knowledge become clear from cultural-anthropological and psychological perspectives.

If this unconscious enslavement shall be avoided, or at least reduced, conscious normative decisions must be made. Here, Mertens' proposition of the transformative paradigm becomes relevant. The transformative paradigm serves as an umbrella term for emancipatory, participatory, and inclusive perspectives which "link the results of social inquiry to action, and [...] to wider questions of social inequality and social justice" (Mertens, 1999, p. 4). Instead of personal values and preferences, the foundation here is social justice, including the dimensions of culture, power, and privilege.

Applying this focus to the dimensions of Lincoln/Guba (2005), Mertens specifies the transformative paradigm (2007; 2014):

> Ontological: While emphasising the existence of multiple versions of reality, rejecting cultural relativism. Focus on making versions of reality visible that have potential to further human rights and social justice. Discuss how certain perspectives on reality become privileged over others and how researchers can serve to undercut undue privileging views.
>
> Epistemological: Differs from postpositivist as well as constructivist approaches. Knowledge is historically and socially situated. Emphasises the reciprocal conductive connection between researchers and participants, which enables a fair understanding of key viewpoints but furthermore relates them to theories. Need to address questions of trust and power.
>
> Methodological: Open for qualitative, quantitative, or mixed methods, most important to involve people who are affected into the research process (dialogic). Collecting data is not enough, the results have to be proceeded into action-orientated outcomes. Making contextual and historical factors transparent, consciously considering oppressing factors.
>
> Axiological: Respect for cultural norms, reciprocity in gaining knowledge and transforming social issues. Societal responsibility of research: the role of the researcher "as one who recognises inequalities and injustices in society and strives to challenge the status quo"; explicit connection "between the process and the outcomes of research and furtherance of a social justice agenda" (Mertens, 2007, pp. 212; 216).

Following critical theorists and evolving ideas of Critical Systems Thinking (CST) (Romm, 2015), the aim is to open up hegemonic discourses and bring marginalised voices into the discussion in order to get below the surface of the issue and address its root causes in an action-oriented way. Beside its explicitly normative positioning, this has a strong effect on the self-image of the researcher as the relation between theory and practice is seen as one of mutual influence. Like the approaches of Participatory/Action Research, inquiry should not be done *about* people or groups, but *with* them. However, while the aim of Participatory Research is to enable disadvantaged groups to participate in society and politics, the transformative approach can (in a possibly broader reading) address even more strongly the structures that prevent participation. Thus, the aim of research would not only be to support 'struggle' for recognition in a competitive system, but rather to establish equal access as a basic value immanent in the system and to dismantle opposing exclusion mechanisms.

The methodological consequence is to take up the polyphony through "culturally competent, mixed methods strategies" (Mertens, 2007, p. 212). While the integration of knowledge stocks has been discussed above, the question of the integration and combination of methods is central here. This refers both to the combination of different methods within a single investigation (triangulation) and to the combination of, for example, joint subprojects working on a common topic. The question of exclusion, access, and other aspects of the suppression or ignorance of societal voices is relevant here as well. By using different methods, deficits of single methods can be mutually compensated. Reciprocity needs to be internalised and institutionalised as a basic principle, both in theoretical and methodological terms. There is a connection to various methodological traditions such as Participatory Action Research (PAR), Community-based Participatory Research (CBPR), Participatory Policymaking (PAR), Transdisciplinary Case Study Approach (TdCS) or Transition Management (a comparison of these approaches can be found in Brinkmann et al., 2015).

In order to generate and improve impact, it is, first, necessary to make the axiological attitude and direction explicit. Second, a selection and combination of appropriate methods is needed. Third, the kind of impact needs to be clarified. Within the transformative logic, the impact can be a better understanding of transformation processes (descriptive-analytical; *transformation research*) or in active participation in concrete transformation processes (*transformative research*). Though for the transparency of research it is useful to consider the two levels separately, in practice they naturally overlap (cf. the distinction of the terms in WGBU, 2011).

In this regard, transformative research distinguishes between:

- System knowledge: Knowledge about the origin, development, and interpretation of problems.
- Target knowledge: Knowledge about the necessities of change, desired goals, and better ways of acting.
- Transformation knowledge: Knowledge of technical, social, legal, cultural, and other means of changing existing modes of action in the desired directions (Pohl et al. 2008; Wittmayer & Hölscher, 2017).

Here, too, the levels overlap. System knowledge is necessary to avoid that interventions cause contrary effects. Target knowledge is necessary for the coherence of recommendations, and transformation knowledge for the formulation of implementation strategies (cf. Nölting et al. 2012). The creation of academic impact can be located on different levels. With regard to actors in schools and politics, the focus is mainly on system and target knowledge; with regard to actors in academia, the focus is on transformation knowledge.

3.2 Transparency of desired impact(s)

In addition to the question of who should be the addressee of the impact, there is the issue of content. The objective of an education *for* something bears the risk to instrumentalise learning processes and to prevent truly controversial debates (Singer-Brodowski, 2016). The axiological dimension in particular is a framework that promotes and limits knowledge and questions. These aspects are usually not disclosed in educational research (Dubs, 2012), some assume that a non-normative understanding of education should be applied (Brezinka, 1978; regarding the advantages of explicit normativity see Koller, 2016) while others distinguish between learning and education, depending on range and depth of change (Marotzki, 1990). The implications of the transformative paradigm may lead to the following objectives (compare the categorization of stakeholders and their interests by Kerr, 2012, p. 22):

Table 1: Example of stakeholders and desired impact

Stakeholder	Example of impact (according to transformative paradigm)
Parents/young people	develop agency; knowledge about intentions, quality, practices and outcomes of educational interventions
Practitioners	facilitate education and agency for social justice; improve their own approaches
Academics/ researchers	learning how to facilitate education and agency for social justice; develop knowledge (theoretical, methodical, didactical) how to facilitate education and agency for social justice; review existing knowledge and analyse outcomes
International and regional agencies	enlarge awareness of issues of social justice and possibilities of agency on various levels; critical observation and demands on education
Policy-makers	develop policies which encourage and facilitate education and agency for social justice; review existing policies

Due to direct dependencies, the intermingling between academia and politics is even more complicated than between research and educational practice. While the research impact demanded by politics is a governance instrument that aims to increase efficiency, the influence of academic knowledge on politics itself is only possible through advice and recommendations. This power imbalance is underlined by the distribution of funding and the selective reception of scholarly findings. To what extent politics sees itself as an addressee of research and (critical) academic impact remains questionable, at least from a systems-theoretical perspective.

Therefore, the impact basically consists in 'activating' the citizens – in the example above, specified by the normative goal of social justice. The decisive factor is to identify and develop opportunities for "transformative leadership" (Montuori & Donnelly, 2019). This requires changes in content, but also in pedagogy:

> "Underlying this transition is a basic tension between pedagogy that emphasises the acquisition of knowledge through teacher instruction and pedagogy that emphasises praxis, interaction with tools, objects, experiences, and people as the means to gain understanding" (Carretero, Haste & Bermudez, 2016, p. 295).

The question of how to teach autonomy and the ability to act for democracy in a non-democratic setting is one of the fundamental questions of citizenship education and has been increasingly discussed in recent years (cf. May, 2008). A minimum claim is that teaching should not follow a logic of 'testable instruction', but of 'process- and practice-oriented learning'.

The learning process logic also addresses teachers. These are sometimes conceived as 'change agents' in order to promote educational impact and finally social change. However, if the goal is maturity and autonomy, the focus at school can only be on education and not on adopting certain concepts. Teachers should therefore support students in the development of their own agency and not overwhelm them with pre-set perspectives (similar Mezirow & Arnold, 1997, pp. 177; 192). Nevertheless, teachers need to be perceived as a particularly relevant group for creating academic impact. Here, the distinction between 'change agent' and 'transformative agent' becomes relevant. While 'change' refers to change processes that take place within a systemic logic, 'transformation' also includes the questioning of these structures and logics, i.e. the deeper levels. For teachers, this implies e.g. to deal with their socio-political role and to "recognise the multiple and nuanced identities that interact in the role of the teacher as public servant, competent professional, 'worker' and their own gender/class/ethnicity" (Horner et al., 2015, p. 20; see also Robertson et al., 2007). As professionals in education, their task is to help socialising the next generation and prepare them for future challenges. However, since these are hardly foreseeable due to rapid social changes, the only certainty is that the recipes of the past will not help. Therefore, processes of education and learning themselves gain importance (see also Biesta & Lawy, 2006). This includes the individual acquisition, selection, and coordination of different offers of knowledge as well as their interpretation and synthetisation. Central methodological questions of transdisciplinary research overlap here with e.g. media-political-pedagogical topics.

Hence, research aiming at the generation of social impact has to involve 'affected parties', make its basic assumptions and objectives transparent and specify to whom the impact efforts relate. However, transformative research does not seek to influence 'society' 'from outside'. Rather, it comprehends itself as involved in societal structures and recognises the requirement to reflect these influences as well as the possible need to change own practices.

4 Reflection: impact on research and on researchers

Impact as change and transformation is usually expected for educational actors and perhaps policy-makers. What is rarely addressed are forms of impact that research has on academia and scholars themselves. On the one hand, every research has an impact on academic knowledge by contributing new findings to collective learning. On the other hand, research may have a concrete impact on the researchers themselves. If the impact is 'positive', it may appear as higher recognition, better material resources, and other aspects concerning the professional position. In addition, however, there are personal and collective learning processes which influence further knowledge production.

Sometimes, especially when 'objective and neutral' research is to be pursued, these aspects are concealed rather than made productive. In transdisciplinary research, by contrast, the reflexive design of the research process is an essential component and the transformative paradigm encourages to undercut undue privileging views. But even though the term 'reflection' is frequently used, it is rarely filled with concrete contents or procedures. Therefore, the role of subjectivity and constructive ways of reflection will be explored.

4.1 Subjectivity in the research process

The neglect or even taboo of researchers' subjectivity has a long tradition in academia in general and in social sciences in particular (Cicourel, 1974; Reichertz, 2015). Nevertheless, the discourse about the inability to switch off subjectivity also has a long tradition, though adopted to different degrees in the various disciplines. The influence of the researching subject belongs to the canon of ethnological literature and even in the supposedly objective science of physics, the Copenhagen School pointed out the subjective moment. In other disciplines, e.g. psychology, the

assumption of objective research and research results continues to be dominant (Baur et al., 2018; Mruck & Mey, 2010).

Recently, the question of the role of researchers in the process of knowledge generation has experienced a renaissance, especially in the field of justice-oriented, postcolonial, and feminist research (Behse-Bartels & Brand, 2009; Hesse-Biber, 2012; Tißberger, 2017). The subjectivity of researchers thus plays a role in all stages of the research process, which can be broken down into five stages (Reichertz, 2015):

- Choosing the topic is not random: unless it is commissioned research, the issue is connected to subjective dispositions of the researcher.
- The first formation of theses often contains intuitive, e.g. subjective, moments.
- The role of the subject in data collection and data evaluation is more frequently addressed, on the one hand regarding the encounter in social situations, on the other hand regarding the influence of unconscious and not purely rational aspects when interpreting.
- Even theory formation is not a purely objective matter (unlike what e.g. Glaser & Strauss, 1967 propose). Rather, as the interpretation of data (including 'the world') plays a role and data is subjectively constructed, also the understanding of the data and its implications are affected.

When admitting the subjectivity of researchers, it is usually regarded as a risk factor for the research process. Therefore, methods usually shall contribute to "systematically eliminate" the subjective (Reichertz, 2015, [9]). Even if suggested to deal intensively with personal "dispositions" and "characteristics", the goal of this enterprise is "to get them under control" (Bourdieu & Wacquant, 2006, p. 286). Nevertheless, some approaches not only accept but even constructively address subjectivity without falling into the trap of narcissistic-subjectivist positioning. These will be explored in the following. In normative research, especially when aiming at social impact, subjectivity must be considered due to the ethical requirements of research, at least in order to be able to make epistemological and axiological presuppositions transparent.

4.2 Reflection: co-reflexion and self-reflexivity

There are two basic forms of reflection which shall be distinguished in the following: (interpersonal) co-reflexion and (intrapersonal) self-reflexivity. Co-reflexion processes can be initiated within cooperative structures by rethinking personal positions and assumptions through confrontation with 'other' knowledge and the need for integration. This refers e.g. to various disciplinary approaches: "Interdisciplinary research can only mean that the obstacles to understanding given [by the disciplines] are, as far as possible, addressed and reintroduced into research" (Luhmann, 1990/1992, p. 460). Since these obstacles are difficult to perceive by oneself, the exchange with others is necessary in order to recognise limitations. This can take place in different constellations and intensities. Beside methodical or situational aspects, the role as a researcher can and should be subject of this process as well. Wittmayer & Schäpke have developed a systematisation for the actions and roles of researchers "when dealing with key issues in creating and maintaining space for societal learning": change agent, knowledge broker, reflective scientist, self-reflexive scientist, and process facilitator (2014, p. 483).

In the following, the focus will be on self-reflexivity, on intrapersonal processes, where thinking and gaining insights ultimately takes place. The according role of the 'self-reflexive scientist' means that "[e]ngaging in process-oriented research includes being one's own research instrument" (Wittmayer & Schäpke, 2014, p. 490). While co-reflexion can be conceived as a "faithful reflection of all that lies in the field of view" (Stirling, 2006, p. 227), self-reflexivity is

addressing the subject that looks into the mirror. Here, the subject recognises itself as part of the whole and its positionality and normativity as part of the dynamics that shall be changed. As mentioned above, there is a high probability of unconsciously reproducing collective and individual patterns. This is particularly important when the desired impact is not reproduction and stabilisation, but change and transformation. Taking the demand for transparency serious, research should not only avoid 'hidden agendas', but also 'unconscious agendas'.

In transdisciplinary research, having impact does not only encompass certain external aspects, but also the researchers themselves. Rauschmayer et al. (2012) even see this part of the work as an indispensable prerequisite for change. The importance of self-reflexive processes is undisputed here and various outcomes are expected of them, e.g. "re-adjust principles, goals and processes by inviting multiple interpretations"; it "further gives the researcher the means to deal with the multitude of activities and roles that arise throughout the research practice" (Wittmayer & Schäpke, 2014, p. 494). Finally, adequate forms of reflexivity are seen as indicators of professionalisation processes and as a necessary component of qualitative research (Kessler, 2016; Steinke, 2000). Realising and accepting the need to transform personally might be challenging, but also deepening the insight and, therefore, the impact on academic and social reality. Curiosity and courage are needed to find out how these processes are shaped in concrete terms and how one's own obstacles can be overcome – particularly, as not only external factors, such as social roles, etc., are relevant here, but also unconscious factors, such as cognitive imprints, emotions, and normative attitudes. Those are factors that are often dealt with only unwillingly and changed even less happily. The (unfounded) concern that such processes and their results would have to be published and personal details revealed should not discourage facing them. Rather, they serve as a means for clarifying and combining paradigmatic positions. In reflection processes, individual insights can be gained, but if understanding oneself as a carrier of certain socio-cultural imprints, insights about collectively active patterns can be derived as well.

4.3 Reflexivity: lose security and gain knowledge

As transformation always includes a loss (loss of until then valid knowledge etc.), a moment of grief is necessary. Ignoring or trying to skip it will prevent progress. Hence, it might be useful to experience that grief consciously and maybe even appreciate it. Applying this to our subject: if the question of how to create (better, deeper, more sustainable) impact, there is a recognition of deficits of existing approaches. This might be easily skipped, but it's worth to take a closer view on that. Realising that a theory, citizenship model, term, value, didactic approach, etc. doesn't show the desired results is disappointing. Consequently, giving it up might feel like a separation, may it be from the approach itself or from the self you were when 'falling in love' with it. However, instead of clinging to an unsuitable, even if slightly modified, idea, its deficiency as well as its useful aspects should be acknowledged. Only then the present processes and challenges can really come into focus. There are several methods aiming at becoming aware of unconscious layers of oneself, just to name a few academically elaborated approaches:

- Autoethnography (Ellis, Adams, & Bochner, 2011; Trahar, 2009),
- Perspective transformation/transformative and emancipatory learning (Mezirow, 1978; Mezirow, 1990),
- Transformative learning (Taylor & Cranton, 2012),
- Transformative education (Boyd & Myers, 1988) or
- Transpersonal research methods (Anderson & Braud, 2011).

It is beyond the scope of this paper to discuss them in detail, especially as there is not one universal way. Each researcher may take another one or a combination of methods. The important aspect here is the attitude and the acknowledgement that even researchers can and

maybe should transform during research processes. It is, thus, necessary to allow and consciously reflect on such a transformation.

The good thing is: reflexivity is not only painful, it can be productive as well. Georges Devereux proposes not to fend off irritations in the research process, but on the contrary to turn them into occasions for constructive reflexivity (Devereux, 1976; Kühner, 2016). Dealing with the emotional and irrational helps to gain further insights – e.g. individual mechanisms of denial, defence, and projection may be mirrored onto the collective sphere. Personal reactions to texts or subjects, e.g. evaluating them as 'different', 'irrelevant', 'unpleasant', or 'threatening', could be questions for reflexivity work. Moreover, the interdependence of "science, unconsciousness, and power" (Erdheim & Nadig, 1992) is intentionally addressed. Applying the transformative paradigm can promote postcolonial and feminist (re)locations in methodical and theoretical questions. Furthermore, structural questions such as publication languages and citation practices come into focus. Spivak's claim for "unlearning one's privileges as one's loss" (Landry & MacLean, 1996, p. 4) may lead to the re-evaluation of known facts (Kühner, 2018; Tißberger, 2017). This is important in order to reduce epistemic violence by academic discourse power and follows the demands of the transformative paradigm.

Reflexivity could also be a remedy against the incapacitation of scholars supposed by critics of transdisciplinarity. Weingart stresses the danger that "the approval from 'outside', the slightly hijacked mass applause, [...] under certain circumstances [falsifies] the uncomfortable and critical judgement of the scientific community" and that the media reception of academic findings causes a "tendency towards a discursive overbidding dynamic directed towards attracting attention – under the inflationarily used rubric 'the latest state of research'" (Weingart, 2001, pp. 235; 253). However, these are personal issues, like vanity (mass applause, attention), conformity (falsifying judgements), or competition (overbidding dynamics). Therefore, these concerns are not an argument against cooperative research but they relate to the scholars themselves in terms of their ability to reflect as well as to their ethical orientation. Therefore, the adaptation of adequate methods is necessary in order to ensure academic quality.

5 Consequences for citizenship education research

To shortly summarise the arguments of this paper: research aiming at social impact needs to be recognised as a social practice that includes responsibility. Therefore, on the one hand, transdisciplinarity as a way of democratising knowledge production is indicated. On the other hand, there is a need for professionalisation which should at least include paradigmatic transparency and reflection processes. In order to meet the need for social responsibility, the transformative paradigm and its strive for social justice are suggested as a suitable frame for normative research in democracies. It is important to acknowledge that empirical research and the demand for impact cannot be separated from theory. This includes not only questions of data collection but furthermore ontological, epistemological and, last but not least, axiological aspects. Ignoring these interdependencies leads to "unreflected instrumentalism" (Baur et al. 2018, p. 261).

What does this mean for citizenship education research? In contrast to other fields of social sciences, educational research has a long tradition of aiming at impact. The corresponding increased political demand is therefore met with less resistance than in other disciplines. Rather, there is a multitude of methodological innovations that are intended to increase impact. Methods such as design-based research achieve a high level of acceptance because they optimise products and make processes more efficient. Though this step is understandable for creating impact, there is a tendency to follow a one-sided quantitative, instrumentalistic logic of measurability. As e.g. Herzog (2013) elaborates, these theoretical foundations are based on the idea of a cybernetic system with an input-output logic that can be optimised by target-performance analyses and

interventions. This is leads to a standardisation and homogenisation logic of the product 'citizen', as expressed in competence models and quantifiable educational standards (critically Feltes & Salomon, 2010).

Depending on personal preferences, this perspective may raise concern already for formal knowledge (e.g. processes and structures). But especially in the field of normative political education it appears paradox to develop personal and ultimately societal development and criticism in a quantifiable way. In opposition to the idea of anti-controversial, efficiency-oriented educational processes, thinking in alternatives and critically confronting with social conflicts and public discourses are central elements of a civic education that aims at responsible and discerning citizens (cf. Eis & Salomon, 2014).

A fundamental aspect for the task to create impact is therefore the normative direction of research processes. What is the orientation of research and thus of its desired impact? Which citizens does the system need or which system do people need? Is the goal to affirmatively "maintain" the institutional order or should it be further developed by "democratic [...] iterations" (Benhabib, 2008)? Or are there different objectives for different target groups (and if so, how is this justified)? Following the approaches of critical pedagogy and transformative paradigm, both the research process and the normative impact must be measured against social justice and human rights. It is therefore questionable to conceptualise citizens as affirming, grateful entities, as it is done from the 'patriotic' or 'banal-national' side (cf. the great chapter title "Eat your peas and love your country" in Throssell, 2015).

Considering the concrete socio-structural composition of the academic system and the dangers of unconscious power reproductions in general, methodological consequences must be drawn. These can certainly be combined with optimisation-oriented approaches, but the normative orientation leads to a special focus on socio-cultural diversity and research ethics. This, in turn, enables new insights and the transformative power as well as the results' legitimacy are higher. This aspect must be emphasised as the responsibility of political decisions shifts and is diffused in favour of academic expertise. Even if assessing this as an invitation to plurality, the concrete research situation lacks legitimacy at first, since it is not transparent or consensual why the specific scholars (and not others) are commissioned or heard. The aim of normative research must therefore be to establish legitimacy within the research process itself. This requires participative and transparent methods as well as self-critical reflection processes, including the willingness to learn and change. For teachers, these are considered to be professionalisation measures (e.g. as Continuous Professional Development, cf. Rösken-Winter & Szczesny, 2017), so it is only reasonable to apply them as researchers as well.

In educational research in particular, it can only be helpful to become aware of inner resistances. If the issue is not about formal facts, but, as in the field of civic education, concerns normative questions, these usually refer to processes of social change and possibly emancipation (democratisation). However, it cannot be expected that both researchers and teachers are free from stereotypes and preferences or could eliminate their subjectivity. Therefore, it is exciting to become aware of personal positionings and imprints, especially since this is also helpful for increasing empathy for the subjectivity of others (this being improvable among teachers show e.g. Hinzke, 2018; Twardella, 2019). Subjectivity should therefore not be concealed, but integrated curiously and self-critically. This makes the quality and scope of data more transparent and it serves the genuine research process. The impact of social and educational research cannot be limited to finding answers, it must also cause new problems in order to enhance the usefulness of research (Biesta et al. 2019).

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