

# **Lessons Learned for Policy Impact from Research and Interventions**

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Classic theories and approaches in Developmental Psychology (in the Rousseau – Piaget tradition) often focus on deficiencies which indicate what children cannot yet do, in comparison to adults and most of them are retrospective, starting with the “end point” as reference (Koops, 2004). Children cannot, for example, think in a formal operational way. Around 2000 a new vision and vocabulary emerged (e.g., Larson, 2000; Lerner, Dowling, & Anderson, 2003). Youth are considered as resources to be developed. The main focus shifted to young persons’ potential for successful, healthy and positive development (Lerner et al., 2003; see also Fisher & Lerner, 2005; Lerner, Jacobs, & Wertlieb, 2005). Representatives of “Positive Development” describe problem solving, emotional regulation, and physical safety as foundational strengths for well-being. These foundational strengths constitute the positive underpinnings of early child health and development, as well as ongoing well-being throughout the life course (see e.g., Bornstein, Davidson, Keyes, & Moore, 2003; Mueller, Phelps, Bowers, Agans, Urban, & Lerner, 2011). The approach on “positive youth development” is based on the understanding that all young people need support, guidance, and opportunities. With this support, they can develop self-assurance in four central areas that are considered as decisive for a happy, healthy, and successful life (National Clearinghouse on Families & Youth [NCFY], n.d.):

- a sense of competence: being able to do something well;
- a sense of usefulness: having something to contribute;
- a sense of belonging: being part of a community;
- a sense of power: having control over one’s future.

Consequently, this new vision has an explicit applied perspective with direct implications on what families, practitioners, and policymakers do and should do to promote positive development in youth. There is high agreement among researchers, policy makers, and practitioners, that kindergarten and school are the places to foster positive development and to apply evidence-based intervention. As pointed out by Kratochwill (2007, p. 829), “... schools

provide unique opportunities to target children's mental health, their academic performance, and the important relationship between the two; ...school practice provides a unique opportunity to follow children, developmentally, across the years (typically kindergarten through 12<sup>th</sup> grade)". In addition, psychologists working in schools have an extraordinary access to children in families and can focus on prevention and promotion at multiple levels and with multiple targets (Kratochwill, 2007).

As a consequence of this new vision evidence-based intervention programs in educational contexts have become highly important in recent years (Kratochwill & Shernoff, 2003). But transferring these programs into practice and into the wider field of public policy often fails (Fixsen, Blase, Metz, & van Dyke, 2013). It is the intention of this paper (1) to discuss reasons for the poor transfer, (2) to make recommendations how successful and sustainable transfer can be realized, and finally (3) to propose a six-step procedure for policy impact from research.

#### Reasons for poor transfer of research findings

An important factor for the success of prevention and intervention programs is the quality of their implementation (Berkel, Mauricio, Schoenfelder, & Sandler, 2011; Durlak, & DuPre, 2008; Fixsen, Blase, Naoom, & Wallace, 2009; Metz & Albers, 2014). Empirical research on implementation in general and on the implementation of prevention and intervention programs in particular show that the key factor for success is to involve an intensive cooperation between researchers, policymakers, and practitioners (see Roland 2000; Spiel & Strohmeier, 2007, 2011) within a mutually respectful, collaborative process (Shonkoff, & Bales, 2011). Datnow (2002, 2005) showed that reform adoption, implementation, and sustainability, are the result of the interrelations between and across groups in different contexts, at various points in time (Datnow & Stringfield, 2000). Spoth and Greenberg (2011) provided similar findings. According to them practitioner-scientist partnerships and

supporting infrastructures can support the local adoption of evidence-based interventions and produce community-level reductions in youth problem behaviours and concomitant positive youth development (see also Crowley, Greenberg, Feinberg, Spoth, & Redmond, 2012).

However, the establishment of a high quality and fruitful cooperation of researchers, practitioners, and policymakers is difficult for various reasons. In the following, we specify these reasons, based on insights from intervention and prevention projects, in which we aimed an implementation into practice explicitly involving policymakers and practitioners (see Spiel, Schober, Strohmeier, & Finsterwald, 2011; Spiel & Strohmeier, 2012; Spiel, Wagner, & Strohmeier, 2012). In fact, there seem to be reasons for poor transfer on part of all parties involved:

Researchers more often explore general mechanism than practical actions in concrete situations. They tend to disregard translational research in comparison to basic research, which has higher impact in the scientific community (Fixsen, Blase, & van Dyke, 2011). Consequently, they often have a lack of knowledge about field conditions.

Practitioners usually have not very much knowledge about standards, criteria, and methods of research which causes difficulties in communication. As they are busy with many other concrete challenges and tasks, they are often not highly motivated to increase their knowledge by means of research findings.

Policymakers, similar to practitioners, commonly have poor knowledge about standards, criteria, and methods of research, which causes very comparable problems. As a consequence, the consideration of scientific findings into political argumentation often is missed. Furthermore, research results might contradict political programs and ideologies.

However, besides these general problems for transferring research evidence into practice, there are specific ones in the field of education. In recent years there was a general movement to develop and disseminate evidence-based interventions and programs in practical settings. But there are considerable differences in implementation both among countries –

Anglo-American countries are more evidence oriented - and among various public service areas (Nutley, Walter, & Davies, 2007). Especially in the field of education, the adoption of instructional programs and practices has been driven more by ideology than by evidence, in contrast to other areas of public service (Slavin, 2008; see also Spiel, 2009a).

There are several reasons for the specific situation in the field of education (see Spiel, 2009b; Spiel & Strohmeier, 2012). It often takes a lot of time to see the results of interventions in the field of education, which contrasts with politicians' needs to score quick wins with the next elections in mind. So far, no clear standards of evidence have been established in the area of education. There are important differences in the way in which research is understood, created, and synthesized, which supports the influence of ideologies on political decisions.

The transfer of scientific knowledge to practice is costly and risky. There are many possible interferences when transferring prevention or intervention programs into practice such as teacher and parent attitudes, and their ability to learn and to transfer what they have learned to everyday life. The demand to change established attitudes and behaviour provokes resistance not only because of the investment in changes but also because it signals a need to improve the hitherto existing behaviour. Resistance against change, therefore, also protects self-worth. And last but not least, in most European countries formal structures providing a systematic transfer from research to policy and practice are lacking.

### Conditions for successful and sustainable transfer of research findings

In this section we make some recommendations on how successful and sustainable transfer can be realized despite all the obstacles described above. Again we explicitly focus on all three groups: researchers, practitioners, and policymakers.

The main demand for researchers is that their studies are conducted in accordance with standards of evidence (see e.g., Spiel, Lösel, & Wittmann, 2009). As part of the evidence-

based movement, various efforts have been made to define standards of evidence. Such standards are provided from several societies and organisations and are more and more accepted and applied in scientific research. For example, the Society for Prevention Research (Flay et al., 2005) has provided standards to assist practitioners, policymakers, and administrators in determining which interventions are efficacious, which are effective, and which are ready for dissemination (for details, see Flay et al., 2005). While efficacy is the extent to which an intervention does more good than harm when delivered under optimal conditions, effectiveness refers to program effects when delivered under more real-world conditions (Flay et al., 2005, p.1). Other standards are provided by, for instance, the Campbell Collaboration (see [www.campbellcollaboration.org](http://www.campbellcollaboration.org)), the Best Evidence Encyclopedia (see [www.bestevidence.org](http://www.bestevidence.org)), the What Works Clearinghouse (see [www.whatworks.ed.gov](http://www.whatworks.ed.gov)), and the Evidence for Policy and Practice Information and Co-ordinating Centre (see [www.eppi.ioe.ac.uk](http://www.eppi.ioe.ac.uk)). Common to these standards is the fact that evidence-based programs are defined by the research methodology used to evaluate them, and randomized trials are defined as the gold standard for defining evidence (Fixsen et al., 2009). Prevention and intervention programs have to be theoretically based, evaluated using state-of-the-art methods under real-world conditions, should show consistent positive effects (including one long-term), are carefully documented (manuals etc.), and provide clear information about target groups and costs, monitoring and evaluation tools.

However, if transfer should work, researchers are also forced to communicate their research findings in the language of practitioners and politicians. Consequently, researchers have to consider the perspective of practitioners and policy makers and meet them as equals. In order to implement prevention and intervention research into public policy, stable alliances both with policymakers and practitioners as well as with the relevant institutions e.g., schools are needed. Respective networks should be built in advance. We recommend also including people from the media in such networks.

Additionally researchers, research institutions, the scientific community at a whole as well as policymakers are asked to reconsider the already established quality criteria for success which are more oriented to basic research using experiments than on longitudinal intervention studies involving evaluation and implementation.

There are also several demands on practitioners which are necessary preconditions for successful and sustainable transfer of research findings (see e.g, Beelmann, 2011). Some requirements concern attitudes and knowledge. Interventions can only work in the field, if practitioners see and can accept the necessity of changes. As mentioned above this requirement is not easy to fulfill. The demand to change established attitudes and behaviour provokes resistance not only because of the investment in changes but also because it signals a need to improve the hitherto existing behaviour. Resistance against change, therefore, also protects self-worth. Practitioners need to require knowledge about research in general and research findings related to the intended interventions and programs specifically. But demands on practitioners go beyond change of attitudes and knowledge acquisition: Practitioners also need to prepare themselves and their institutions for an intervention. For example, in schools, it is of high importance that the principal has high respected educational leadership and that there is high consensus among the teachers about education, teaching, and achievement and that teachers are cooperatively planning these issues (see e.g. Scheerens, 1990). Furthermore, readiness for intervention also requires high responsibility and willingness for engagement both on the school and the single teacher level. Working teams have to be established with a majority of consensus in the institution and with administrative support (see e.g., Spiel & Strohmeier, 2011). Furthermore, supportive community networks are required and have to be established. Promotable conditions for success are the establishment of basic evaluation attitudes in teachers and a school culture where failures are seen as learning opportunities.

Accordingly, there are also demands on policymakers to meet the requirements for successful and sustainable transfer of research findings (Beelmann, 2011). Again the demands concern changes in attitudes but also measures to provide a transfer supportive context. Policymakers should advocate for evidence in policy. That means, for example, that policy decisions about programs are based on evaluations and cost-benefit analyses. For forcing transfer in institutions such as schools, support and incentive systems have to be established. Furthermore, policymakers have to provide for the opportunities to make institutions and practitioners ready for intervention and programs. Important prerequisites to make schools ready for interventions are evidence based teacher education, leadership training for principals, and the establishment of quality assurance systems in schools (see e.g., Senge et al., 2000; Schober, Klug, Finsterwald, Wagner, & Spiel, 2012). Last but not least, policymakers are forced to promote the acceptance of evidence based prevention and intervention programs in the public.

In the following section we reconsider the described demands and recommendations in a more process oriented manner specifying a concrete procedure for bringing them into action in the field of positive youth development.

#### A six-step procedure for policy impact from research

Based on the explanations in the two sections above we propose a six-step procedure for policy impact from research (see Spiel, Schober, & Strohmeier, in press; Schober & Spiel, in press). This procedure is also based on theoretical and empirical knowledge from prior research (e.g., Glasgow, Vogt, & Boles, 1999; Greenhalgh, Robert, MacFarlane, Bate, & Kyriakidou, 2004) and our own experience in intervention and implementation research (e.g., Finsterwald, Wagner, Schober, Lüftenegger, & Spiel, 2013; Grading, Yanagida, Strohmeier, & Spiel, 2015; Schober, Lüftenegger, Wagner, Finsterwald, & Spiel, C., 2013; Schultes, Stefanek, van de Schoot, Strohmeier, & Spiel, 2014). The six steps together should be



considered as parts of a dynamic process with many sub-processes, feedback loops, and interdependencies.

Step 1: Identify where support is needed. Researchers are used to identify scientific problems and wishes for new insights. The “positive youth development” approach is predicated on the understanding that all young people need support, guidance, and opportunities. Therefore, the focus is not only on problems arising in basic research but also on policy impact of research and on intervention and prevention programs. Consequently, researchers must not only be curiosity-driven but also mission-driven, combining the quest for fundamental understanding with a consideration of practical use (Stokes, 1997). In other words, if scientists intend to contribute to positive youth development and the transfer of research findings, the first step requires socio-political responsibility as a basic mindset.

Step 2: Ensure availability of robust knowledge. The availability of robust and sound scientific knowledge and evidence is a fundamental precondition for giving support or guidance. Moreover, it is a prerequisite for any kind of transfer (Spiel, Lösel, & Wittmann, 2009). Consequently, researchers have to be experts in the relevant field with excellent knowledge of theory, methods, empirical findings, and limitations. This also includes the political dimension of research in the sense of defining and financing corresponding research topics. Obviously, within the positive youth development research a large body of theoretical and empirical knowledge and findings have been produced so far.

Step 3: Identify reasonable starting points for action. A wide body of research has made it clear that many intervention programs and measures do not work everywhere and at all times (Meyers, Durlak, & Wandersmann, 2012). As a consequence, researchers do not only need high expertise in the relevant scientific field. It must be combined with a differentiated view of prevailing cultural and political conditions. Researchers need knowledge and experience in the relevant practical field and its contextual conditions. As mentioned above, schools have been identified as key contexts to foster positive development. Researchers need

to know whether the respective institutions are ready for intervention and if not, how to prepare them.

Step 4: Establish a cooperation process with policymakers. This step is a very crucial one. Successful development and implementation of evidence-based intervention in practical settings not only requires cooperation, persistence, time, but also money. As research often follows its own, very intrinsic logic, which clearly differs from political thinking, a very deliberate process of establishing cooperation and building alliances is necessary. Researchers have to be aware of policymakers' scope of action and have to consider that there are other influences on government and policy, beyond evidence (Davies, 2004, 2012). They have to keep in mind that policymaking is highly embedded in a bureaucratic culture and is forced to respond quickly to everyday contingencies. Finally, researchers have to consider that policymaking is always a matter of what works at what costs and with what outcomes (Davies, 2004, 2012). Therefore, researchers are forced to integrate evidence with all these factors. Consequently, the establishment of such a cooperation process with policy makers requires that researchers make their voice heard, and that they are sometimes very insistent (see also Spiel et al., in press). Here, the orientation on positive development preparing the fundament for ongoing well-being throughout the life course might be helpful for establishing such a cooperation.

Step 5: Coordinate development of intervention and implementation. So far, intervention and implementation research have not yet been systematically connected. Different research groups with different research traditions are usually involved in intervention research and in implementation research. Implementation researchers are mostly given mandates by policy makers to take on the implementation of already existing interventions (Fixsen et al., 2011). This might be a key reason why translating interventions into widespread community practice is so difficult (Spath et al., 2013). Therefore, we strongly recommend for a systematic integration of intervention and implementation research (Spiel et

al., in press; Schober & Spiel, in press). The whole conceptualization of an intervention as well as its evaluation and implementation should systematically consider the needs of the field (Spiel, Schober, Strohmeier, & Finsterwald, 2011) in an integrated way (Beelmann & Karing, 2014).

Step 6: Transfer of program implementation. For this final scaling up step, several models and guidelines have been proposed by implementation science. Implementation science has emerged in the early eighties of the last century (Rossi & Wright, 1984) and has been defined as “the scientific study of methods to promote the systemic uptake of research findings and evidence-based practices into professional practice and public policy” (Forman et al., 2013, p.80; see also Eccles & Mittman, 2006). In the last decade, many implementation studies have been conducted and several conceptual models and implementation frameworks have been presented. In 2012 Meyers and colleagues provided a review consisting of 25 frameworks. They found 14 dimensions that were common to many of these frameworks and grouped them into six areas: (a) assessment strategies, (b) decisions about adaptation, (c) capacity-building strategies, (d) creating a structure for implementation, (e) ongoing implementation support strategies, and (f) improving future applications. According to their synthesis, the implementation process consists of a temporal series of these interrelated steps, which are critical to quality implementation (see also Spiel et al., in press). When implementing programs in the field of positive youth development we strongly recommend for picking up the findings provided by implementation science and applying respective implementation frameworks (e.g., Fixsen et al., 2013; Meyers et al., 2012; Spoth et al., 2013).

## Conclusions

So far, the positive youth development approach has been very successful. A large body of theoretical, empirical, and methodological papers are published based on this vision (see e.g., Bowers et al., 2010; Larson, 2000; Lerner et al., 2003; Lippman, Moore, & McIntosh, 2011;

Mueller et al., 2011) and several workshops and conferences targeting this approach have been organized. However as, for example, shown by the papers presented at the Society of Research in Child Development (SRCD) Special Topic Meeting in Prague, 2014, knowledge and findings are mostly isolated, often coming from cross-sectional studies, are very seldom replicated and systematically connected. Furthermore, interventions and programs are mostly conducted by researchers as pilot studies, are often not replicated, and large scale implementation is mostly missed.

Therefore, we strongly recommend to put findings together to an integrative-holistic framework, and to describe the positive youth approach and its findings in the language of politicians and practitioners by considering regional and local cultures and traditions. Last but not least, we encourage researchers to applying the proposed six-steps-procedure for getting policy impact from research and interventions.

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