

Governance in education: Stocktaking governance reforms and initiatives over the last two decades¹

Herbert Altrichter, Department of Education and Educational Psychology, Johannes Kepler University Linz, Austria

Abstract

The background paper starts with some conceptual clarification in order to highlight the specific point of interest governance studies attend to, e.g. a multiplicity of actors (instead of simple top-down relationships), the multi-level structure of education system and the need to translate and 're-contextualize' innovation programmes as they 'travel' between levels. In the second section of the paper two major reform concepts are outlined which offered alternative models of governing the education system: School autonomy policies aim to expand the room for manoeuvre on the level of individual schools, but also their responsibility for results and development. Evidence-based governance policies have been stimulated by the concepts of New Public Management and promoted by the results and by the technical development work of PISA and TIMSS. Both types of reforms are complex constellations of different elements which vary from country to country. In the third section some findings of research on the impact of autonomy and evidence-based governance reforms are discussed. While many of the results are still inconclusive, it is possible to derive some issues governance reforms are to pay attention to.

1. A governance perspective – conceptual matters

'The governance perspective provides a general analytical framework for studying all kinds of coordination problems among actors' (de Boer et al. 2007, 138). The regulation of systems and the production of system-specific performance are conceived as arising from the coordination of the independent actions of social actors (see Benz 2004, 17). This seemingly abstract definition – 'coordination of actors' – invites us to spell out what exactly is happening when we consider social processes to be 'governed', 'regulated', or 'steered' and to study empirically who is contributing what to a system which appears to be 'governed' or coordinated in a specific way. Specific attention is paid to the following dimensions in governance studies (Altrichter, 2010a):

Multitude of Actors

The term 'governance' firstly indicates that we assume that school systems – and their reform – are not necessarily shaped by a single dominant actor, e.g. by the government and its administrative staff. More actors are involved in the formation, maintenance and change of a system. Although the governance perspective strongly argues that many actors have some influence on the steering of a system, this does *not* mean that they usually have equal chances of participation and support (see Altrichter and Salzgeber 2000). This does *not* mean either that the central state cannot be an important actor anymore, however, it allows us to attend to situations in which the state itself is

¹ Background paper commissioned by UNESCO for the Conference on Education Policies for 2030: Governance, School Leadership and Monitoring and Evaluation as levers for change, UNESCO Headquarters (Paris, France), January 18-20, 2016

regulated (e.g. by supranational bodies, e.g. such as the European Community) or enters negotiation relationships with actors which are in principle under their jurisdiction (e.g. firms, foundations).

Coordination of Action

Another crucial concept is 'coordination'. We tend to consider something to be 'regulated' or 'governed' if the relevant system actors 'coordinate' their action. The governance perspective uses a non-evaluative concept of 'coordination' to analyse the way and functionality of the actors' combined action (see Lange and Schimank 2004; Altrichter 2010a, for analytical instruments).

The concept of coordination does not only point to the coordination of actors, but also to the coordination of policy fields: If a reform plans to push forward with a policy of system monitoring, then this might have repercussions on student assessment, the curriculum, teacher education etc. which have to be coordinated in an comprehensive strategy.

Agency and structure

It is not the erratic or accidental actions which are interesting for governance analysis but the structured and structuring actions which contribute to the (relative) sustainability of system coordination. The capability to act in social systems is based on structural elements, on a structure of regulation which organizes rights and competences for actors in a way which is specific for the particular system (see Braun 2001, 247; Kussau and Brüsemeister 2007, 21). Thus, governance analyses are looking for rules and resources (see Giddens, 1992) which are already existent in a system and how they are used (or not used) and transformed by action. If a governance system is to be reformed, then promoters of a reform must offer – in part – new norms and resources and stimulate relevant actors to take them up.

Multilevel Systems

Another characteristic of the governance perspective is that complex social systems such as the school system are considered to be multilevel phenomena. This notion points to the fact that not all actors interact with all other actors in the same way, but that there are typical constellations of actors, typical 'levels' with special principles of action which may be very different from the logic of action on another level.

The concept of 'multilevel systems' draws our attention to questions of *cross-border coordination* between system levels which appear to be among the most crucial problems of system development. The plans and blue-prints for a governance reform (which are produced and propagated by politicians, the administrative top levels and by social scientists) are not the whole reform. They are in the first place '*structural offers*' – they are, in part, new rules and resources (see Giddens, 1992) –, which are inserted in the transactions of a school system. They have to be taken up by actors on various "levels" of the system; and they have to be translated and re-designed for the specific context, in order to have a chance to acquire some social relevance.

'Taking up' these structural offers is more than merely following prescribed action programs, more than 'implementation' of given structures (see Ball et al. 2012), but necessarily entails constructive and productive features. Actors have to make these structural offers more concrete, they have to develop it further in view of the specific logic of action and of the conditions of their particular level and have to translate them into feasible versions of action. Fend (2006) has developed the concept of re-contextualisation to account for these processes.

From an empirical perspective it is relevant, (1) whether or not these structural offers are taken up at all, (2) in what way they are transformed for the purposes of the specific level, (3) whether or not new routinized coordination structures are formed and what resources are invested in these structures and (4) what results with respect to the goals of reform and to side effects are to be observed.

Intentional action and (in parts) transintentional results

Actors have goals when they contribute to transactions in school systems. Although actors want to 'govern' the system according to their intentions and although the 'Gestalt' of individual schools and of the entire school system may be seen as a product of an 'intentional struggle' of different actors (see Schimank 2007a), many important dynamics and results of this struggle are 'transintentional', i.e. actions produce, for example, non-intended results, unexpected ripple effects or unforeseen distant effects which governance analyses must attend to (see Sydow and Windeler 2000, 9).

2. Modernization policies: Recent governance reforms

2.1 Contemporary governance issues

What are the contemporary governance reforms by which the states in this world try to promote education? The UNESCO (2016) report on "Changing Dynamics in the Governance of Education" includes accounts of recent development of education governance in the Mediterranean, the South Caucasus, sub-Saharan Africa, East Asia, and in the so-called BRICS countries (Brazil, Russia, India, and China). Combined with a European perspective (as one may derive from contributions to the European Conferences Educational Research (ECER)), the following picture of contemporary governance issues emerges (see Fig. 1):

Basic governance features: accountability: Many countries seem to 'modernise' their structures of regulation and control. Instead of adding to existing structures of direct supervision and control through the administrative chain, often new instruments – such as 'new school inspections' and comparative testing of students – are introduced (see cpt. 2.3 below).

Relationship between central and local actors: Accountability issues usually involve some reshuffling of influence, tasks, and responsibilities between central and local actors. The main approach in the previous period was to give more decisions making power to the local level with respect to the everyday decisions of the operation of the individual school and its further development, but to be more resolute in stating goals and evaluating results from the central level. School autonomy and school based management have been key issues in this respect (see cpt. 2.2 below).

Civil society involvement - relationship of public and private involvement: When it comes to local decision-making then also the deeper question of the role of civil society for schooling is put. Many 'modernisation' initiatives opt for more active participation of local and civil society actors and aim to stimulate them to take on more responsibility for the advancement of education. Some countries stimulate more actors to take on more responsibilities *within* existing schools, other countries - due to beliefs in the advantages of market coordination in some places, due to the hope to activate

additional funds for education in other places - opt for increasing provision and funding of education by private actors.

Address inequities: This also has repercussions on another on-going governance issue. Involving more actors in decision-making about education has sparked debates and research on the consequences for social inequities (see e.g. Blanchenay et al. 2014).

Monitoring and research: In many countries, the insistence on more resolute and more sophisticated models of accountability has been technically and argumentatively supported by the huge developments of empirical research and comparative research technology in recent years which, in turn, are stimulated by the data produced by monitoring systems.

In the following paragraphs I will focus on two major reform concepts which seem to be relevant in many regions since they claim to offer alternative models of governing the education system which fit better to the contemporary needs of schooling: school autonomy and school based management on one hand, and evidence-based governance on the other.

	Mediterranean (Akkari 2016)	BRICS (Dervin & Zajda 2016)	Sub-Saharan Africa (Ankomah 2016)	East Asia (Brehm, & Bray 2016)	South Caucasus (Andguladze & Mkrtchyan 2016)	Europe (ECER)
Basic governance features	> Increase accountability		> Build governmental capacity to support educational governance	> Strengthen educational regulations	> Create effective accountability and support systems > Place greater focus on capacity-building in planning and policy-making	> Accountability and evidence-based reforms
Investments			> Increase budget allocation to education		> Invest in teachers	
Relationship between central and local actors	> Support decentralization	> decentralization → provide support through training and funding > Promote participation and decision-making at local levels	> Adopt a more decentralized governance model for education		> Provide schools with more autonomy > Develop school leadership capacity	> School autonomy and school based management
Civil society involvement	> Include civil society	> Promote participation and decision-making at local levels > Increase civil society involvement in	> Encourage private participation in education provision and funding			> School autonomy and community involvement > Services of schools

		education				
Relationship of public and private involvement	> Fund private education	> privatization → prevent inequity through public subsidy and oversight	> Encourage private participation in education provision and funding			> debate on privatization and its repercussions
Address inequities		> Address regional inequities in funding for public schools		> Address inequities		> Social inequities (highlighted by PISA)
Research and monitoring	> Improve research and information-sharing	> Encourage research and knowledge-sharing	> Strengthen data collection efforts and monitoring and evaluation systems	> Encourage further research		> Development of monitoring systems Boost educational research
International interventions			> Effectively coordinate international interventions and donor support			> Harmonizing educational systems (Bologna)
Special educational goals				> Emphasize consumer education		

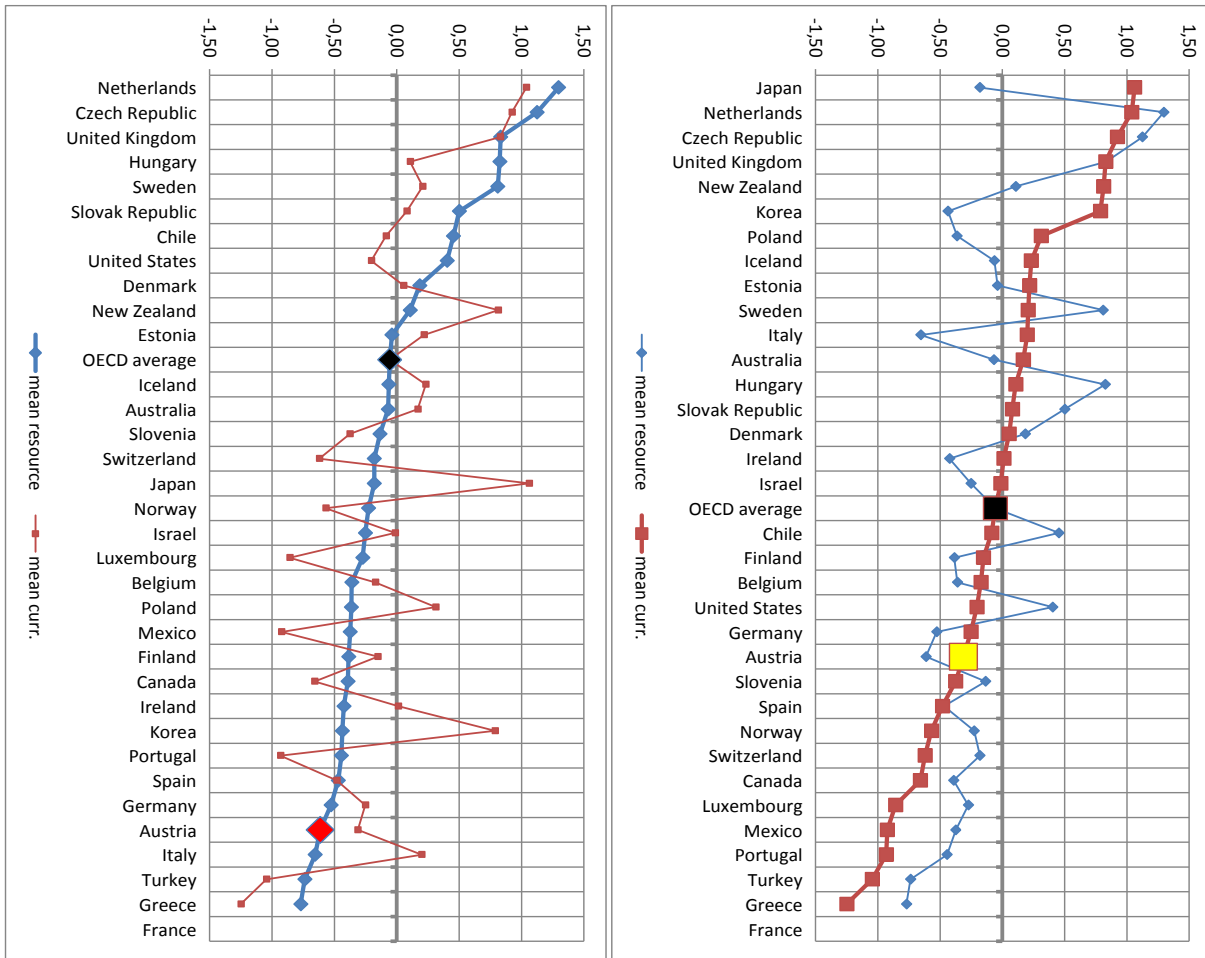
Figure 1: Overview of contemporary governance issues (based on information in UNESCO 2016)

2.2 School autonomy and school based management

The so-called *school autonomy policies* aim to expand the room for manoeuvre on the level of individual schools, but also their responsibility for results and development. They do this by 'decentralisation' (i.e. redistributing rights for decision from superordinate administrative levels down the hierarchy to individual schools), by 'deregulation' (i.e. doing away with regulations or making them less detailed) or by 'delegation' (i.e. lending rights by a superior level to a lower level). Autonomous decision rights may be granted in various fields (e.g. budget, personnel, organisation, educational decisions). The general goals of these policies are to strengthen the 'quality and effectivity of education in schools' and the 'responsiveness to local needs' (OECD, 2008, 524). Beyond these general goals school autonomy is a rather 'polyvalent' policy. Both Sertl (1993) and Kimmig and Brauckmann (2009) have found up to six normative arguments connected with autonomy policies (e.g. educational equity, participation of local stakeholders, simplification and streamlining of administration) which would produce interferences if fitted into one single policy. Autonomy and decentralisation policies are found in different countries in the political programmes of both left and right parties which, however, usually emphasise different aspects (democracy and participation vs. competition, accountability and efficiency; see Christ and Dobbins 2015, pp. 164). In Pelinka's (1996) interpretation school autonomy is a 'low-threshold reform policy' which enables political actors to connect parts of their traditional positions. This allows a broad consensus in initial political negotiations, however, postpones educational and political disputes or delegates them down the hierarchy – sometimes to individual schools.

In many countries autonomy policies have been complemented by another bundle of policies: Initiatives for *school-based management or managerialization of individual schools* aimed for enhancing the opportunities to manage and develop individual schools.

There was and is a wide variation in the levels of autonomy different countries and schools systems grant to their schools (Eurydice, 2007; OECD, 2008) and individual teachers (Eurydice, 2008). According to OECD (2008, 531; using expert data) more than 90% of relevant educational decisions are taken on school level in English and Dutch schools, while it is only 30% in German and Austrian schools. In the latter countries the central state (Austria) or the federal states ("Bundesland", Germany) are the dominant decision makers. Fig. 1 (which is based on the reactions of individual school leaders during PISA 2009) indicates that there are also differences with respects to different fields of autonomy (e.g. decisions on resource allocation vs. curricular decisions).



a) countries ranked according to the amount of decisions on resource allocation on school level b) countries ranked according to the amount of curricular decisions on school level

Figure 1: Indices of school autonomy with respect to decisions on resource allocation and curricular decisions on school level (source: OECD PISA 2009 Data-Tables, Annex B1, Tab. IV.3.5. und IV.3.6).

Despite these differences most countries have increased decision rights on school level. In the time span between 2003 – 2007 nearly half of the countries in the OECD review (2008, 528) legislated new decentralisation policies, but both the number of countries and the number of decentralisation decisions was smaller than in the previous period 1998 – 2003 (OECD, 2004, pp. 463). ‘Autonomy and school-based management’ is clearly on of these policies ‘travelling’ across international borders described by Ozga and Jones (2006). While the main message of this policy is similar in the various national school systems, the specific ingredients of the reform and the systemic meaning which it takes on when it is embedded in a special national context may vary widely. Let me point to some analytic dimensions which are important in this aspect:

Levels of the governance systems: Educations systems differ in their number of levels and in the way they distribute decisions rights to different levels: The group of countries on the top of Fig. 2 contents itself with two levels of administration, while the educations systems at the bottom of Fig. 2

need four to five levels. The sheer number of levels does not necessarily correlate with the amount of decision rights given to the central level or to the schools level (see Fig. 2).

Devolution of rights to individual schools does not necessarily mean that the central authorities lose influence: Decentralisation of process and budget decisions may be accompanied by increased central control over output and by more explicit national goals (OECD, 2008, 524). In some countries, most notably in England (see Jopling & Hadfield, 2015) 'decentralisation' also included that rights which were held by intermediate regional authorities before were given to individual schools resulting in a relative strengthening of central authorities.

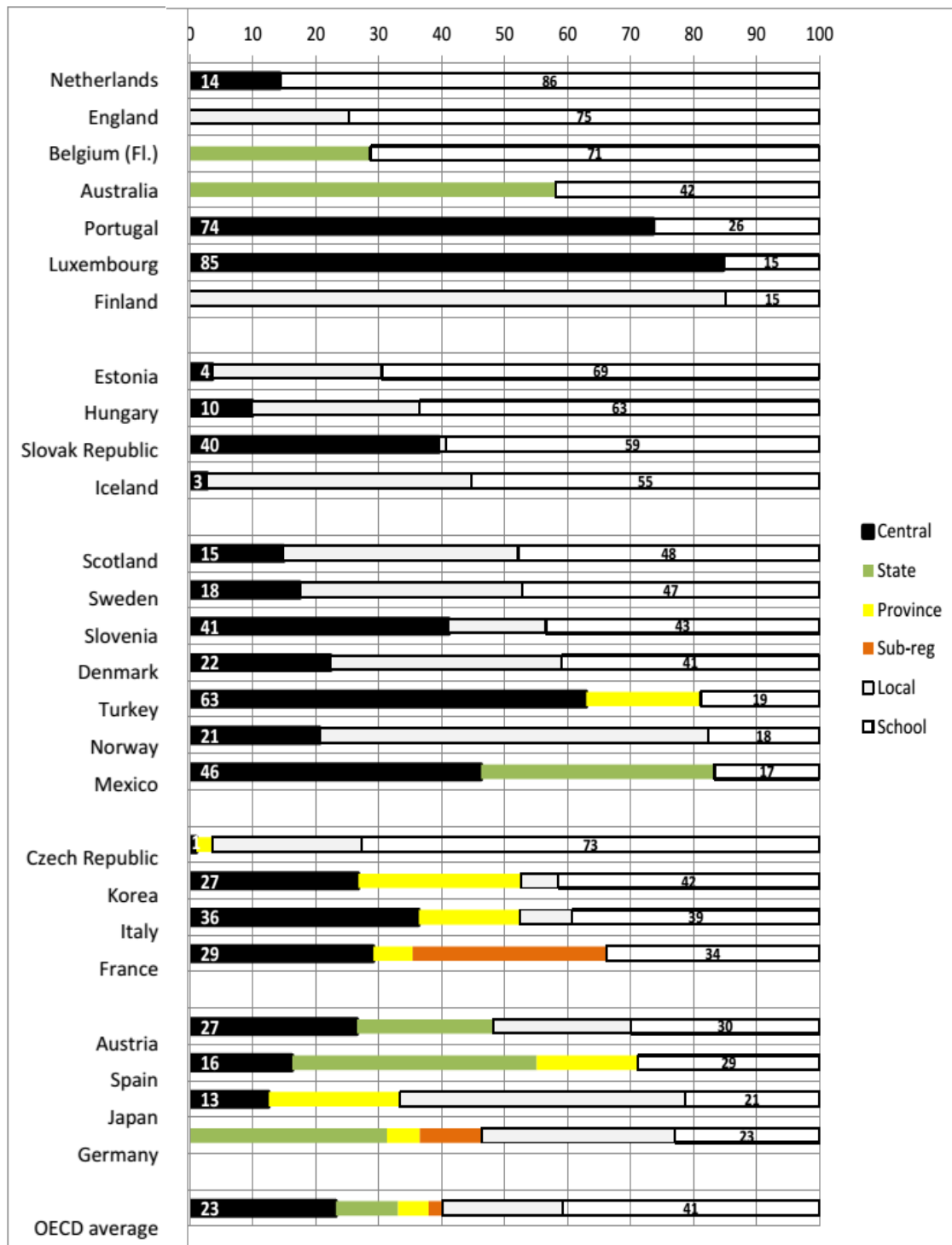


Fig. 2: Levels of decision in various countries (source: Altrichter et al., 2015, using OECD, 2012, Data-Table Chart D6.6)

Dominant coordination mechanisms: Educations systems also differ with respect to their main principles or mechanisms of coordination between different actors. E.g. ‘autonomy policies’ can be pursued with very different guiding concepts; Rürup (2007) distinguished three different ‘topical strings’ of reform which will lead to different results:

- *Optimization*: Policies which delegate some decision making responsibility to individual schools in order to optimize a bureaucratic system of administration still considered to be primarily state responsibility.
- *Competition*: Policies which give individual schools (or network of schools) the opportunity to become more different, to develop specific ‘profiles’ and to compete for students. These policies may also include measures to strengthen the influence of non-state actors on schooling by increasing alternatives and opening up opportunities for alternative provision in an education market.
- *Participation*: Policies which open up options for influence for non-state actors (such as students, parents, but also for representatives of the economy, science, churches etc.), however, *within* schools on in-school decision making.

In the Eurydice review (2007) it is argued that ‘early adopters’ of autonomy policies in Europe in the beginning of the 1980s emphasised ‘democratic participation’ as the main principle of their reform, while in more recent reforms process autonomy is often combined with accountability and new public management reforms.

2.3 Accountability and evidence-based governance reforms

The so-called evidence-based governance reforms have been stimulated by the concepts of New Public Management (NPM; see Rhodes, 1991) and promoted by the results and by the technical development work of PISA and TIMSS. Evidence-based governance models usually include the following basic elements (Altrichter & Maag Merki, 2016):

- Explicit and clear *communication of goals*, e.g. through formulating measurable performance standards or developing quality frameworks for school inspection;
- *Accountability for results (i.e. goal fulfilment)*, by evaluating the performance of students (e.g. by standard-oriented nationwide tests) and the processes and results of schools (e.g. by school inspections), schools (and their staff, management and – in some countries – their school board) are made accountable for their work.
- *Feeding back these results* to actors on various levels of the system. The discrepancies between goals and results are meant to motivate, and to orient these actors to increased *developmental activities (quality improvement)*.
- *Involve stakeholders and wider public*: In many cases evaluation results are not only communicated to the professionals in schools, but also to the individual schools’ stakeholders and even to the wider public through the media. This reflects the idea that schools will be more responsive to developmental needs if they are directly accountable to their constituencies.
- *Link different levels of the system*: The idea that cycles of goal formulation, evaluation and feedback will dynamize improvement is implemented on all (or most) levels of the system: Regions, and in some cases central ministries, are subject to similar instruments of performance management (e.g. the results of standard testing are communicated in personalized reports to different system levels). Instruments such as contract management between schools and regional officers, regional officers and central authorities etc. are used to link information flow and loyalty between system levels.
- *Support systems*: Finally, existing support systems must be aligned with the governance models and new support instruments must be developed (e.g. developing teaching material for

competence-based teaching and diagnostic tests by which teachers can prepare their classes for comparative testing).

Although at first sight in some contradiction, in political reality school autonomy policies were soon complemented by evidence-based accountability policies in a such way that they appear as ‘Siamese twins’ of present education policy (Gronn, 2009, p. 2; Higham & Earley, 2013, p. 703). In this view, the autonomy of individual schools is a precondition for making the school responsible for its results, i.e. for holding it accountable. Quality in education is derived from the schools’ capacity to react quickly and in a well-focussed way to goals and performance feedback.

What is the *role of professionalism in new governance models*? Changes in governance-systems potentially change the options for action and influence of different actors. Taking Kogan’s (1996) distinction of dominant actors in education: Evidence-based policies were usually launched by state actors, were said to benefit customers/clients, but regulated the profession (and intermediary regional administration). These reforms were often implicitly critical of the teaching profession because they aimed to provide a better, more rational basis for classroom and school development than teachers and schools had before. They were sometimes explicitly critical; e.g. Barber (2004, 9), himself one of the proponents of a determined NPM-reform in England, describes the introduction of accountability in England as a kind of struggle with an ‘uninformed teaching profession’². No wonder that evidence-based policies were criticized for taking the “control of the content and processes of education” out the hands of the teaching profession (Barber 2004, 9) and, thereby, de-professionalizing teaching. On the other hand, it soon became clear that evidence-based instruments were in desperate need of a knowledgeable profession which e.g. is willing and able to make efficient and responsible use of its sophisticated instruments, such as data feedback (Altrichter & Geisler, 2012).

3. Research on governance reforms

There is a growing body of research in different disciplines studying conditions, processes and results of autonomy and accountability reforms in schooling. The findings are not always conclusive. Why is this the case?

Besides methodological variation and difficulties of these studies the varying national, regional, and local strategies and conditions for governance reform seem to be the main reason (Belfield & Levin, 2009). It is no surprise that different constellations of governance measures can have varying effects in specific contexts and different implementations circumstances. The varying elements of

² For Barber (2004, 30) the reforms between 1997 and 2001 were “unapologetically prescriptive ... only through such central direction could significant system wide progress be made at sufficient speed.” These changes were necessary to overcome ‘uninformed professional judgement’ characteristic of prior periods (“The profession as a whole was uninformed”; Barber 2004, 30). In his view, the evidence-based instruments have laid the grounds for a new phase which builds on a new type of ‘informed professional judgement’ and allows more room for manoeuvre for professionals again, but also “requires radical change in the way both government and schools function and hands the new relationship” (Barber 2004, 31). “The system has reached a new level of maturity; that performance improvement no longer needs to be driven with such vigour from top down because leaders and teachers within the system have the will and the means to drive improvement themselves ...” (Barber 2004, 29).

governance policies interact with other system characteristics (e.g. accountability instruments, conditions of teachers' work) in a very complex way which has not yet been fully clarified.

Given this situation, there is no single most effective governance policy which can be recommended for all purposes. There are always trade-offs, there always special contextual features to be observed, and the process of implementation itself is crucial for the results of these reforms. Nevertheless, I think it is fair to say that research in this field has progressed enormously. Even if it cannot give us guarantees for the best possible governance system, it can point us to typical implication issues, to characteristic interaction with other system features, etc.

3.1 Research on autonomy reforms

What are the possible teachings which can be read out of studies on the uptake of autonomy reforms?

(1) More autonomy does not necessarily result in better performance. Although it is one of the main ideas of autonomy policies to improve the quality of learning and results, there is surprisingly little evidence in this respect (see Davis und Raymond 2012; Östh, Andersson & Malmberg, 2013; Cowen, Fleming, Witte, Wolf & Kisida, 2013). The secondary analysis of PISA 2000 data by Maslowski, Scheerens und Luyten (2007) does not show any relationship between autonomy of individual schools and student reading competence. Also the studies by Allen (2010), Malen, Ogawa and Kranz (1990), Summers and Johnson (1994, S.14), Holtappels, Klemm and Rolff (2008) and Schwippert, Klieme, Lehmann and Neumann (2007) do not indicate a correlation of student performance and the amount of devolution of rights to schools. An exception are studies on the impact of US charter schools: While their performance results are in general heterogeneous and show rather small effect sizes (Cremata et al. 2013; Hoxby, Murarka & Kang, 2009; Bifulco & Ladd 2006; Hanushek, Kain, Rivkin & Branch, 2007), they seem to have positive effects on students' further participation in education (Lavy 2014; Booker et al. 2011; Furgeson et al. 2012).

A special type of studies which used econometric methods for re-analysing PISA and TIMSS data has attracted wide public attention. For the autonomy measures available in these data Wößmann (2008) argued that there is a tendency of negative effects of more school autonomy on student performance which, however, are turned into positive effects in many cases if there are central (in particular: school leaving) examinations in operation at the same time; the effects of central examinations are positive with and without autonomy. Wößmann's findings may be read as a justification of the pairing of autonomy and accountability (in which the second part claims more importance).

These studies have attracted some criticism with respect to their theoretical basis and inconsistency in findings (see Schümer und Weiß 2008; McLellan 2009; Gronn 2009). Furthermore, similar studies did not yield identical results in any case: Robin and Sprietsma (2003) found a significant positive effect of personnel autonomy in PISA 2000 data (see Walberg et al., 2000). In a study by Maslowski et al. (2007) both personnel and curriculum autonomy had a negative effect on student performance, while there was a positive influence of budget autonomy. A re-analysis of German PISA 2006 by Nikolai and Helbig (2013) did not indicate any correlation between school autonomy and student competences, which did not even materialize when autonomy was combined with performance tests. Re-analysing the first three PISA studies Schlicht-Schmälzle, Teltemann and Windzio (2011)

found positive effects of deregulation on performance, however, socially privileged students benefitted most, thus, the gains contributed to reinforcing social inequity.

(2) More school autonomy may result in more competition of schools with adverse effects on educational equity. Autonomy policies often enable schools to adapt to specific needs and potentials of their community. The licence to develop different educational offers and work styles opens up the possibility to compete with other schools for students and other esteemed resources which, in turn, may be associated with undesirable effects on equity measures.

This mechanism has been researched for the process of ‘school profiling’ in which schools use curricular autonomy to develop specific educational offers which distinguish them from other schools. This provides students with more choices, but also is accompanied by a potential ‘hierarchization’ of learning opportunities and increased selection. In this case schools will compete for the resource ‘able students’ (Altrichter, Heinrich & Soukup-Altrichter, 2014; Keddie, 2014). Thereby, social and structural inequality is reinforced, since students from socially privileged environments and schools in favourable contexts profit most (see Nonte, 2013; Specht, 2011). Students with fractured school careers and with high need for care and assistance are deposited most often to ‘residual schools’ or ‘residual classes’ which are characterized by less careful teaching and support (see Eder, 2011; Altrichter, Heinrich & Soukup-Altrichter 2014).

Decentral management of resources (if it is organized differently in different areas) may also reinforce social disparities (Machin & Silva 2013; Hanushek, Link & Woessmann, 2013). Such findings are reported by Levacic (2008) for England where compensatory resources vary regionally. A Canadian study indicates that centralisation may alleviate inequities (Leach, Payne & Chan, 2010).

(3) More autonomy of schools is demanding for school leaders. Additional rights and duties for autonomous decision making on school level and the introduction of new governance instruments put additional demands on school leaders (see Pont, Nusche & Hobkins, 2008). Thereby, the complexity of school management is increasing which calls for new management models and for involving of more organisation members in management duties (see Wissinger, 2015; Bonsen, 2016; Muslic et al., 2015).

(4) More autonomy is an occasion and an impulse for community development. Whether or not new autonomous decision rights are productively used, does not merely depend on teachers and school leaders. The decentralisation discourse is tightly connected with the debate on changing influences on regional and communal level (Döbert, 2010; Tegge 2015b) which generally argues for more participatory and more transparent governance models (French, Miles & Nathan, 2014) and suggests to include actors which did not yet have a say in traditional processes of educational decision making, such as foundation, trade unions, local groups and associations (Tegge 2015a).

A prominent example of a comprehensive devolution initiative is the Chicago School Reform. Bryk et al. (2010) claim: “Decentralisation had broad, positive effects on many of Chicago’s elementary schools” (op.cit., p. 214). Student performance in reading and in Maths respectively increased in 70% and 80% of the participating primary schools. However, there were also schools which could not benefit from the reform, in particular schools in underprivileged Afro-American areas (op.cit., p. 222). The researchers’ explanation is: Decentralising significant authorities and transferring additional resources to the local level was successful and led to „a genuine empowerment for local action“ (op.cit., p. 216) when the new autonomous options were used for renewing the social relationships

between school management, teachers, parents, and local community leaders. The relationships became more horizontal (rather than vertical to the central bureaucracy) and stimulated a constructive dialogue which opened up new social resources on school level.

3.2 Research on data use

Research on data use is particularly interesting for understanding the field of governance reforms for at least two reasons: Firstly, it is one of the most characteristic and innovative features of the *evidence-based governance model* that it aims to stimulate teachers, schools, administrators, politicians, and stakeholders to use the best available information for substantiating their developmental decisions. As a consequence, these models usually also take trouble to feedback information which is available e.g. in inspection reports, or in system-wide data sources (achievement, input, process and context data) to different actors. These measures are meant to substantiate the goal of evidence-based governance models to base system improvement – not on the (time- and context-dependent) judgements of politicians and not on the individual experience of teachers – but on valid and reliable data. As such it is a promise for making education more rational.

Another reason for the relevance of this research is that it directly focuses on one of the central problems of governance studies, on the *translation and 're-contextualization' processes between different levels in a multi-level system*: Data use for development involves a wide range of interactional and interpretative process (see e.g. Coburn & Turner, 2011). Actors must understand both development goals and data sources in order to make use of data fed back to them. They must identify relevant data sources (sometimes collect additional data themselves), analyse and interpret it to become meaningful for developmental actions. And they must devise appropriate institutional arrangements in the respective level to put these action plans into practice in a sustainable way.

Data use by teachers and school leaders may lead to increased student achievement as some studies have shown (Campbell and Levin, 2009; Carlson et al. 2011; Lai et al. 2009), but it does not in all cases. Thus, the question for effective conditions for data use arises. Schildkamp et al. (2014) have conducted case studies in five European countries (Germany, Netherlands, Lithuania, Poland, and UK). In only one of these countries they consider schools to be positively equipped to use data effectively which – as they argue – connected with some conducive organizational structures: Teachers in these schools collaborated around the use of data, had a data expert available on site, and were trained in the use of (achievement) data. (see Schildkamp et al., 2014, p.22). Their recommendation is: “the best way to start with data use is not to start with data but to start with a problem a school wants to solve or goals they want to achieve. The next step is collecting data on these problems and goals. This approach can work in all countries around the globe, but only if we invest in training for data literacy and invest in an effective data infrastructure.” (p. 23)

Research in low stakes³ countries shows that teachers and schools do not find it always possible, if not easy, to derive action consequences from the information fed back to them by comparative standard testing or by school inspections (van Ackeren 2003; Maier 2006; Altrichter 2010; Maier & Kuper 2012). And if they draw action consequences they more often slightly modify teaching (e.g. repeating to teach a topic or spending more time for it; including test formats into their teaching)

³ Contrary to “low stake”-accountability systems, “high stake” systems connect evaluation results to serious consequences for the relevant actors. While the latter systems assume that improvement will result from the avoidance of sanctions or the striving for rewards and incentives, low stake systems think that institutional learning is based on ‘insight’ which is supported by relevant data (see Böttger-Beer and Koch 2008).

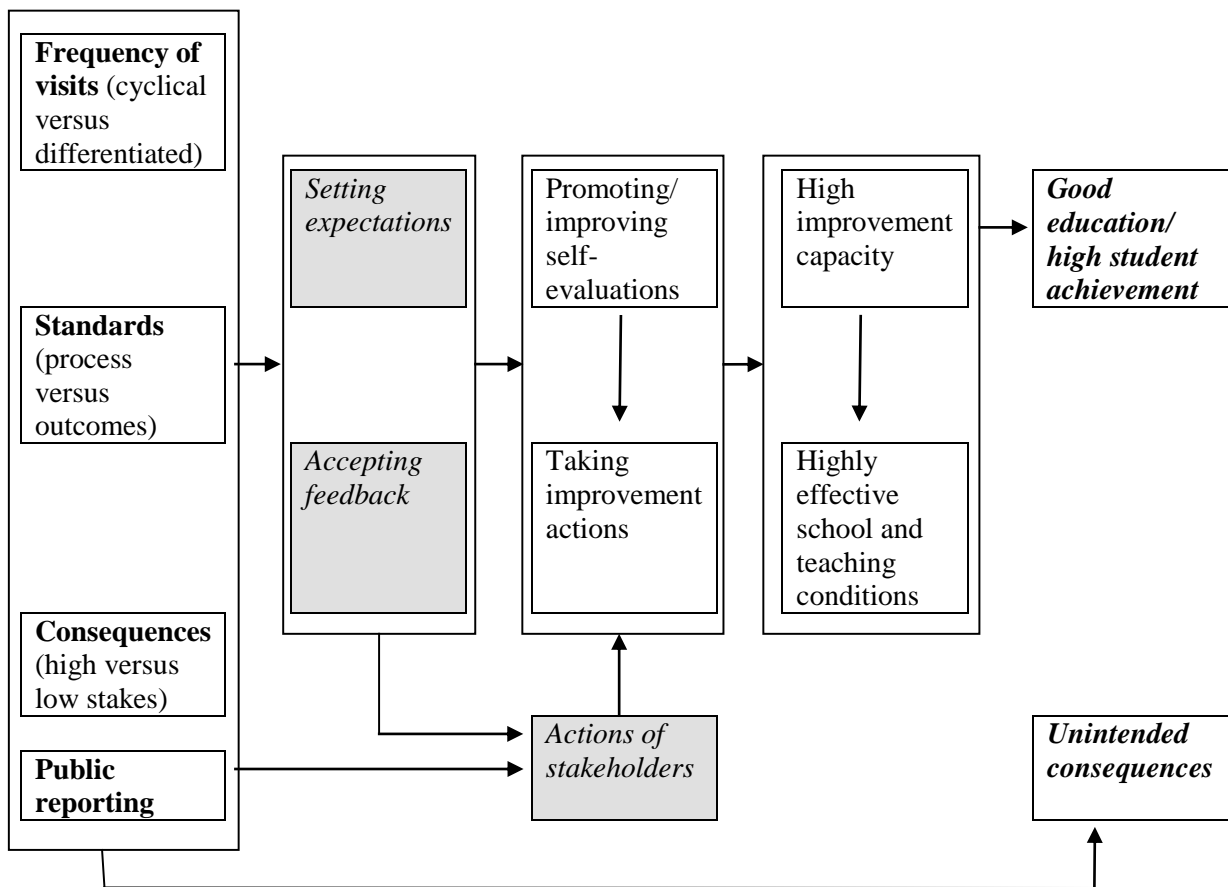
rather than making substantial changes. In high stake countries, school and teachers seem to produce more developmental activities on occasion of inspections, however, there are also more unintended and unwanted consequences, such as narrowing the curriculum to tested subjects, or prohibiting new teaching methods (Ehren et al. 2015; Altrichter and Kemethofer 2015).

A recent study on the effects of *school inspection* in six European education systems (Ehren et al. 2015) may provide some explanation for the presently disappointing effects of data feedback. In this research a 'programme theory of school inspection' was reconstructed by analysing inspection guidelines and documents, and by interviewing representatives of the Inspectorate in six countries (Ehren et al., 2013). This 'programme theory' connects general normative assumptions about the relationships of different inspection characteristics, causal mechanisms, intermediate processes and outcomes which are identified across national contexts (see Fig. 3). The most interesting element is that three of the characteristics 'evidence-based governance models' (see cpt. 2.4) have a special position in this model: setting normative expectations, accepting and using feedback, and being sensitive to actions of stakeholders.

This model was more closely studied in a longitudinal project. School principals in primary and secondary education in the six countries, i.e. Austria (region Styria, N = 540), Czech Republic (N = 165), England (N = 290), Ireland (N = 125), the Netherlands (N = 88) and Sweden (N = 1031), were asked to participate in an online survey to collect comparative data in the autumn of 2011; two successive waves of data collection took place at the end of 2012 and 2013 (see Ehren et al. 2015; Gustafsson et al. 2015; Altrichter and Kemethofer 2015).

An interesting issue emerged when the three 'causal mechanisms' by which inspection systems intend to produce their effects were more closely examined. Most of the inspection models that were studied influence 'setting expectations'. "These models, at the same time, *reduce* the likelihood that principals pay attention to the inspection feedback and derive action strategies for school improvement based on this feedback." (Ehren et al, 2015, p. 19) This may be explained by neo-institutional and social coordination theories.

Figure 3. Framework of causal mechanisms of school inspections (Source: Ehren et al., 2013, p. 14)



“As outlined by neo-institutional theories, the school’s quest for legitimacy and the normative pressure created by inspection frameworks seem to be important drivers of schools’ reactions to inspection. The clearer the inspection communicates and the more normative pressure is underlying them, the more school leaders undertake and report self-evaluative and developmental activities. Such activities may similarly make inspection feedback obsolete as schools are already aware of their strengths and weaknesses or find it difficult to use feedback when it implies changes in set (teaching) processes and (school organizational) structures.” (Ehren et al., 2015, p. 20)

The use of ‘performance feedback’ may be more difficult under the condition of accountability pressure which is present in high stake systems. In particular, for schools being evaluated as problematic by the inspection, it may be difficult to cut enough time and activate enough resources for undertaking the elaborate reflective and constructive processes to develop sound actions strategies from feedback und to show progress in a short time span. Rather, they might be more likely to turn to strategic behaviour instead of thoroughly analysing and using feedback. Consequently, ‘performance feedback’ will fail to produce desired results under pressure. It may well be that many schools and teachers are not using inspection data for classroom and school development *following* inspections. It is more likely that inspections and systems of performance goals and testing have an effect *before* an inspection visit, when schools prepare for the assessment by implementing self-evaluations and by taking improvement actions to align their school to the standards to be tested. This means that the inspections and performance testing may have prescriptive rather than evaluative value, especially if the model includes sanctions for failing schools. In order to make evidence-based governance models work in a way that is beneficial to the

overall system, Ehren et al. (2015; in line with Brennan and Shah 2000) argue that improvement of educational quality is better thought of as a *culture change* rather than the implementation of a set of specific instruments.

Note

The final sections of the paper draw on recent work by the author (to be) published in Altrichter, Brauckmann, Lassnigg, Moosbrugger, & Gartmann (2015) and in Ehren, Gustafsson, Altrichter, Skedsmo, Kemethofer, & Huber (2015).

References⁴

- Akkari, A. 2016. Education governance in the Mediterranean. In UNESCO (ed.), *Changing Dynamics in the Governance of Education: A Comparative Analysis of Emerging Issues and Reforms in Developing Countries* (pp. 6-18). Draft Report. Paris: UNESCO.
- Allen, R. 2010. Does school autonomy improve educational outcomes? London, Institute of Education. <http://eprints.ncrm.ac.uk/1290/1/qsswp1002.pdf> (Accessed 1.12.2015)
- Altrichter, H. 2010a. Theory and Evidence on Governance: conceptual and empirical strategies of research on governance in education. *European Educational Research Journal*, Vol. 9, No. 2, pp. 147-158.
- Altrichter, H. 2010b. Schul- und Unterrichtsentwicklung durch Datenrückmeldung. Altrichter, H., Maag Merki, K. (ed.), *Handbuch Neue Steuerung im Schulsystem*, Wiesbaden, VS, pp. 219-254.
- Altrichter, H., Brauckmann, St., Lassnigg, L., Moosbrugger, R. and Gartmann, G.B. 2015. *Schulautonomie oder die Verteilung von Entscheidungsrechten und Verantwortung im Schulsystem*. Unpubl. chapter for the Austrian National Education Report 2015. Linz/Wien, JKU/IHS.
- Altrichter, H. and Geisler, B. 2012. Unterrichtsentwicklung in Zeiten der Systemreform. *Schweizerische Zeitschrift für Bildungswissenschaften*, Vol. 34, No. 1, pp. 71 – 95.
- Altrichter, H. and Heinrich, M. 2005. Schulprofilierung und Transformation schulischer Governance. X. Büeler, A. Buholzer and M. Roos (ed.), *Schulen mit Profil*, Innsbruck, StudienVerlag, pp. 125-140.
- Altrichter, H., Heinrich, M., and Soukup-Altrichter, K. 2014. School decentralisation as a process of differentiation, hierarchization and selection. *Journal of Education Policy*, Vol. 29, pp. 675-699.
- Altrichter, H. and Kanape-Willingshofer, A. 2012. Bildungsstandards und externe Überprüfung von Schülerkompetenzen: Mögliche Beiträge externer Messungen zur Erreichung der Qualitätsziele der Schule. B. Herzog-Punzenberger (ed.), *Nationaler Bildungsbericht 2012. Band 2: Fokussierte Analysen bildungspolitischer Schwerpunktthemen*, Graz, Leykam, pp. 355-394.
- Altrichter, H. and Kemethofer, D. 2015. Does Accountability Pressure through School Inspections Promote School Improvement? *School Effectiveness and School Improvement*, Vol. 26, No. 1, pp. 32-56.
- Altrichter, H. and Maag Merki, K. (eds.) 2016. *Handbuch Neue Steuerung im Schulsystem* (2nd ed.). Wiesbaden, Springer VS.

⁴ This list includes the references of the full version of the paper.

- Altrichter, H., Rürup, M. and Schuchart, C. 2016. Schulautonomie und die Folgen. H. Altrichter and K. Maag Merki (ed.), *Handbuch Neue Steuerung im Schulsystem*. 2nd edition, Wiesbaden, Springer VS, pp. 107-149.
- Altrichter, H. and Salzgeber, St. 2000. Some Elements of a Micro-Political Theory of School Development. H. Altrichter and J. Elliott (eds.), *Images of Educational Change*, Buckingham, Open University Press, pp. 99-110.
- Andguladze, N. and Mkrtchyan, A. 2016. Education governance in the South Caucasus. In UNESCO (ed.), *Changing Dynamics in the Governance of Education: A Comparative Analysis of Emerging Issues and Reforms in Developing Countries* (pp. 65-81). Draft Report. Paris: UNESCO.
- Ankomah, Y. A. 2016. Education governance in the fragile states of sub-Saharan Africa. In UNESCO (ed.), *Changing Dynamics in the Governance of Education: A Comparative Analysis of Emerging Issues and Reforms in Developing Countries* (pp. 34-47). Draft Report. Paris: UNESCO.
- Avenarius, H., Brauckmann, S., Döbert, H., Isermann, K., Kimmig, T. and Seeber, S. 2006. *Durch größere Eigenverantwortlichkeit zu besseren Schulen*. Berlin/Frankfurt, DIPF.
- Ball, S.J., Maguire, M. and Braun, A. 2012. *How schools do policy. Policy enactments in secondary schools*. London, Routledge.
- Barber, M. 2004. The Virtue of Accountability: System re-design, inspection, and incentives in the era of informed professionalism. *Journal of Education*, Vol. 185, No. 1, pp. 7-38.
- Belfield, C. R. and Levin, H. N. 2009. Market Reforms in Education. G. Sykes, B. Schneider, D.N. Plank and T.G. Ford (ed.), *Handbook of Education Policy Research*, New York, London, Routledge, pp. 513-527.
- Benz A. (ed.) 2004), *Governance – Regieren in komplexen Regelsystemen*. Wiesbaden, VS.
- Benz, A. 2004a. Governance: Modebegriff oder nützliches sozialwissenschaftliches Konzept? Benz, A. (ed.), *Governance – Regieren in komplexen Regelsystemen*, Wiesbaden, VS, pp. 11-28.
- Benz, A. 2004b. Multilevel Governance – Governance in Mehrebenensystemen. Benz, A. (ed.), *Governance – Regieren in komplexen Regelsystemen*, Wiesbaden, VS, pp. 125-146.
- Benz, A., Lütz, S., Schimank, U. and Simonis, G. (ed.) 2007, *Governance – Ein Handbuch*, Wiesbaden, VS.
- Bifulco, R., Ladd, H. F., and Ross, St. 2009. Public school choice and integration. Evidence from Durham, North Carolina. *Social Science Research*, Vol. 38, No. 1, pp. 71-85.
- Blanchenay, P., Burns, T. and Köster, F. 2014. *Shifting Responsibilities - 20 Years of Education Devolution in Sweden*. Paris, OECD Publishing. DOI: 10.1787/5jz2jg1rqrd7-en
- Bonsen, M. 2016. Schulleitung und Führung in der Schule. H. Altrichter and K. Maag Merki (ed.), *Handbuch Neue Steuerung im Schulsystem*, 2nd ed., Wiesbaden, Springer VS, pp.301-322.
- Booker, K., Sass, T., Gill, B. and Zimmer, R. 2011. The effects of charter high schools on educational attainment. *Journal of Labor Economics*, Vol. 29, No. 2, pp. 377-415.
- Böttger-Ber, M. & Koch, E. 2008. Externe Schulevaluation in Sachsen – ein Dialog zwischen Wissenschaft und Praxis. In W. Böttcher, W. Bos, H. Döbert, & H. G. Holtappels (eds.), *Bildungsmonitoring und Bildungscontrolling in nationaler und internationaler Perspektive*. Münster, Waxmann, pp. 253-264.
- Brauckmann, S., Altrichter, H. and Moosbrugger, R. 2015. Systematisierung der Diskursstränge um Autonomiereformen. Unpubl. Paper. Alpen Adria Universität Klagenfurt und Johannes Kepler Universität Linz.

- Brauckmann, S., Kuper, H. and Thiel, F. (ed.) 2015. Editorial. *International Journal of Educational Management*, Vol. 29, No. 6. <http://www.emeraldinsight.com/doi/pdfplus/10.1108/IJEM-06-2015-0076> (Accessed 1.12.2015).
- Braun, D. 2001. Regulierungsmodelle und Machtstrukturen an Universitäten. Stölting, E., Schimank, U. (ed.), *Die Krise der Universitäten*, Leviathan, Sonderheft 20, pp. 243-262.
- Brehm, W. C. and Bray, M. 2016. Education governance in East Asia. In UNESCO (ed.), *Changing Dynamics in the Governance of Education: A Comparative Analysis of Emerging Issues and Reforms in Developing Countries* (pp. 48-64). Draft Report. Paris: UNESCO.
- Brennan, J., and Shah, T. 2000. Quality assessment and institutional change: Experiences from 14 countries. *Higher Education*, Vol. 40, No. 3, pp. 331-349.
- Brüsemeister, T. 2004b. *Das andere Lehrerleben. Lehrerbiographien und Schulmodernisierung in Deutschland und in der Schweiz*. Bern, Haupt.
- Bryk, A.S., Bender Sebring, P., Allensworth, E., Luppescu, S., and Easton, J.Q. 2010. *Organising Schools for Improvement. Lessons from Chicago*. Chicago, The University of Chicago Press.
- de Boer, H., Enders, J. and Schimank, U. 2007. On the way towards New Public Management? The Governance of University Systems in England, the Netherlands, Austria, and Germany. Jansen, D. (ed.), *New Forms of Governance in Research Organisations*, Dordrecht, Springer, pp. 137-152.
- Campbell, C., & Levin, B. (2009). Using data to support educational improvement. *Educational Assessment, Evaluation and Accountability*, Vol. 21(1), pp. 47–65.
- Carlson, D., Borman, G., & Robinson, M. (2011). A multistate district-level cluster randomized trial of the impact of data-driven reform on reading and mathematics achievement. *Education and Evaluation and Policy Analysis*, Vol. 33(3), pp. 378–398.
- Christ, C. and Dobbins, M. 2015. Dezentralisierung der Bildung in den westlichen OECD-Staaten: Eine vergleichende Analyse der Ursachen und Formen. J. Schrader, J. Schmid, K. Amos and A. Thiel (eds.), *Governance von Bildung im Wandel*, Wiesbaden, VS Verlag für Sozialwissenschaften, pp. 14-173.
- Coburn, C. E., & Turner, E. O. 2011. Research on data use: A framework and analysis. *Measurement*, Vol. 9, 173–206.
- Coe, R. 2002. Evidence on the role and impact of performance feedback in schools. A.J. Visscher and R. Coe (ed.), *School improvement through performance feedback*, Lisse, Swets and Zeitlinger, pp. 3-26.
- Cowen, J. M, Fleming, D. J, Witte, J. F, Wolf, P. J., and Kisida, B. 2013. School Vouchers and Student Attainment: Evidence from a State-Mandated Study of Milwaukee's Parental Choice Program. *Policy Studies Journal*, Vol. 41, No. 1, pp. 147-168.
- Cremata, E., Davis, D., Dickey, K., Lawyer, K., Negassi, Y., Raymond, M., and Woodworth, J. L. 2013. *National Charter School Study*. Stanford University, Center for Research on Education and Outcomes.
- Davis, D. H., and Raymond, M. E. 2012. Choices for studying choice: Assessing charter school effectiveness using two quasi-experimental methods. *Economics of Education Review*, Vol. 31, No. 2, pp. 225-236.
- Dempster, N. 2000. Guilty or Not: The Impact and Effects of Site-Based Management on Schools. *Journal of Educational Administration*, Vol. 38, No. 1, pp. 47–63.

- Dervin, F. and Zajda, J. 2016. Education governance in the BRICS countries. In UNESCO (ed.), *Changing Dynamics in the Governance of Education: A Comparative Analysis of Emerging Issues and Reforms in Developing Countries* (pp. 19-33). Draft Report. Paris: UNESCO.
- Döbert, H. 2010. Regionale Bildungsberichterstattung. *Recht der Jugend und des Bildungswesens*, Vol. 2, pp. 158-175.
- Dupriez, V. and Maroy, C. 2003. Regulation in school systems: A theoretical analysis of the structural frame work of the school system in French-speaking Belgium. *Journal of Education Policy*, Vol. 18, No. 4, pp. 375-392.
- Ehren, M.C.M. (n.d.). Risk-based school inspections of Dutch schools and school boards: A critical reflection on intended effects and causal mechanisms. http://schoolinspections.eu/impact/wp-content/uploads/downloads/2012/05/Netherlands_PT.pdf (Accessed 15.12.2015).
- Ehren, M.C.M., Altrichter, H., McNamara, G. and O'Hara, J. 2013. Impact of school inspections on teaching and learning – describing assumptions on causal mechanisms in seven European countries. *Educational Assessment, Evaluation and Accountability* Vol. 25, DOI 10.1007/s11092-012-9156
- Ehren, M.C.M., Gustafsson, J.-E., Altrichter, H., Skedsmo, G., Kemethofer, D., and Huber, S.G. 2015. Comparing effects and side effects of different school inspection systems across Europe. *Comparative Education*, Vol. 51, No. 3, pp. 375-400.
- Ekholm, M. 1997. Steuerungsmodelle für Schulen in Europa. *Schwedische Erfahrungen mit alternativen Ordnungsmodellen. Zeitschrift für Pädagogik*, Vol. 43, pp. 597-608.
- Eurydice 2007. *School Autonomy in Europe: Policies and Measures*. Brussels, Eurydice.
- Eurydice 2008. *Levels of Autonomy and Responsibilities of Teachers in Europe*. Brussels, European Commission. http://eacea.ec.europa.eu/ressources/eurydice/pdf/094EN/094EN_011_TOF.pdf. (Accessed 03. Dezember 2008).
- Fend, H. 2006. *Neue Theorie der Schule*. Wiesbaden, Verlag für Sozialwissenschaften.
- Fend, H. 2011. Die Wirksamkeit der Neuen Steuerung – theoretische und methodische Probleme ihrer Evaluation. *Zeitschrift für Bildungsforschung*, Vol. 1, No. 1, pp. 5-24. <http://www.springerlink.com/content/j37n4228g11l1q24/> (Accessed 15.10.2015).
- French, D., Miles, K.H. and Nathan, L. 2014. *The Path Forward: School Autonomy and its implications for the Future of Boston's Public Schools*. Boston MA, Boston Public Schools.
- Furgeson, J., Gill, B. Haimson, J., Killewald, A., McCullough, M., Nichols-Barrer, I. Teh, B.-r., Verbitsky-Savitz, N., Bowen, M., Demeritt, A., Hill, P., and Lake, R. 2012. *Charter-school management organizations: Diverse strategies and diverse student impacts*. Cambridge, MA, Mathematica Policy Research.
- Giddens, A. (1992), *Die Konstitution der Gesellschaft. Grundzüge einer Theorie der Strukturierung*. Frankfurt/M., Campus.
- Grauwe, A. de 2004. *School-based management (SBM). Does it improve quality?* Paper commissioned for the EFA Global Monitoring Report.
- Gronn, P. 2009, September. *Autonomy: A theoretical, policy and practical matter?* Paper presented at the ECER-Conference, Wien.
- Hanushek, E. A., Kain, J. F., Rivkin, S. G., and Branch, G. F. 2007. Charter school quality and parental decision making with school choice. *Journal of Public Economics*, Vol. 91, No. 5-6, pp. 823-848.
- Hanushek, E. A., Link, S. and Woessmann, L. 2013. Does school autonomy make sense everywhere? Panel estimates from PISA. *Journal of Development Economics*, Vol. 104, pp. 212-232.

- Harazd, B., Gieske, M. and Gerick, J. 2011. Schulleitung in eigenverantwortlichen Schulen. F. Dietrich (ed.), *Neue Steuerung - alte Ungleichheiten?* Münster, Waxmann, pp. 101–112.
- Hartmann, M. and Schratz, M. 2010. Schulleitung als Agentin des Wandels in der autonomen Schulentwicklung. J. Schmich (ed.), *Talis 2008: Schule als Lernumfeld und Arbeitsplatz*, Graz, Leykam, pp. 111–125..
- Higham, R. and Earley, P. 2013. School autonomy and government control: School leaders' views on a changing political landscape in England. *Educational Management Administration and Leadership*, Vol. 41, No. 6, pp. 701-717.
- Hoxby, C. M., Murarka, S., and Kang, J. 2009. How New York City's Charter Schools Affect Achievement. Cambridge, MA, New York City Charter Schools Evaluation Project. http://users.nber.org/~schools/charterschoolseval/how_NYC_charter_schools_affect_achievement_sept2009.pdf (Accessed 23.4.2015).
- Jopling, M. and Hadfield, M. 2015. From fragmentation to multiplexity: Decentralisation, localism and support for school collaboration in England and Wales. *Journal for Educational Research Online*, Vol. 7, No. 1, pp. 49–67.
- Keddie, A. 2014. ‚It's like Spiderman ... with great power comes great responsibility': school autonomy, school context and the audit culture. *School Leadership and Management*, Vol. 34, No. 5, pp. 502-507.
- Kimmig, T. and Brauckmann, S. 2009. Eigenständige Mittelbewirtschaftung der Schulen: Zwischen Verwaltungsreform und Qualitätskriterium pädagogischer Arbeit. F. Prüß (ed.), *Die Ganztagschule – von der Theorie zur Praxis*, Weinheim, Juventa, pp. 261-272.
- Kogan, M. 1996. Monitoring, control and governance of school systems. OECD (ed.), *Evaluating and Reforming Education Systems* pp. 25-45. Paris, OECD.
- Kussau, J. and Brüsemeister, T. 2007. Educational Governance: Zur Analyse der Handlungskoordination im Mehrebenensystem der Schule. H. Altrichter, T. Brüsemeister, and J. Wissinger (ed.), *Educational Governance – Handlungskoordination und Steuerung im Bildungssystem*, Wiesbaden, VS, pp. 15-54.
- Lai, M. K., McNaughton, S., Amituanai-Tolosa, M., Turner, R., & Hsiao, S. (2009). Sustained acceleration of achievement in reading comprehension: The New Zealand experience. *Reading Research Quarterly*, Vol. 44(1), pp. 30–56.
- Lange, S. and Schimank, U. 2004. Governance und gesellschaftliche Integration. Lange, S., Schimank, U. (ed.), *Governance und gesellschaftliche Integration*, Wiesbaden, VS, pp. 9-46.
- Lavy, V. 2014. Long Run Effects of Free School Choice: College Attainment, Employment, Earnings, and Social Outcomes at Adulthood. CESIFO working paper. <http://www.nber.org/papers/w20843.pdf> (Accessed 23.4.2015).
- Leach, J., Payne, A. A. and Chan, S. 2010. The Effects of School Board Consolidation and Financing, on Student Performance. *Economics of education review*, Vol. 29, No. 6, pp. 1034–1046.
- Leithwood, K., and Menzies, T. 1998. Forms and effects of school-based management: A review. *Educational Policy*, Vol. 12, pp. 325-346.
- Levacic, R. 2008. Financing schools - evolving patterns of autonomy and control. *Educational Management Administration Leadership*, Vol. 36, No. 2, pp. 221-234.
- Maag Merki, K. 2010. Theoretische und empirische Analysen der Effektivität von Bildungsstandards, standardbezogenen Lernstandserhebungen und zentralen Abschlussprüfungen. H. Altrichter and K. Maag Merki (ed.), *Handbuch neue Steuerung im Schulsystem*, Wiesbaden, VS Verlag für Sozialwissenschaften, pp. 145-169.

- Machin, S., and Salvanes, K. G. 2010. Valuing School Quality via a School Choice Reform. IZA Discussion Paper No. 4719. <http://ftp.iza.org/dp4719.pdf> (Accessed 28.04.2015).
- Maier, U. 2006. Können Vergleichsarbeiten einen Beitrag zur Schulentwicklung leisten? *Journal für Schulentwicklung*, Vol. 10, No. 4, pp. 20-28.
- Maier, U. and Kuper, H. 2012. Vergleichsarbeiten als Instrumente der Qualitätsentwicklung an Schulen. Überblick zum Forschungsstand. *Die Deutsche Schule*, Vol. 104, No. 1, pp. 88-99.
- Malen, M., Ogawa, R.T. and Kranz, I. 1990. What do we know about schoolbased management? A case study of the literature – a call for research. W.H.Clune and I.F. Witte (ed.), *Choice and control in American education*. Vol. 2, London, Falmer Press, pp. 289-342.
- Maroy, C. 2009. Convergences and hybridisation of educational policies around “post-bureaucratic” models of regulation. *Compare*, Vol. 39, No. 1, pp. 71-84.
- Maslowski, R., Scheerens, J., and Luyten, H. 2007. The Effect of School Autonomy and School Internal Decentralisation on Students’ Reading literacy. *School Effectiveness and School Improvement*, Vol. 18, No. 3, pp. 303-334.
- Muslic, B., Brauckmann, S. and Basold, K. 2015. Distributed Leadership: Why does it matter? Evangelische Akademie Loccum (ed.), *Was wirklich wirkt!? Effektive Lernprozesse und Strukturen in Lehrerfortbildung und Schulentwicklung*, Rehburg-Loccum, Evangelische Akademie, pp. 107-124.
- OECD 2004. *Bildung auf einen Blick. OECD-Indikatoren 2004*. Paris, OECD.
- OECD 2008. *Bildung auf einen Blick 2008. OECD-Indikatoren*. Paris, OECD.
- OECD 2015. *Improving Schools in Sweden: An OECD Perspective*. Paris, OECD.
- Östh, J., Andersson, E., and Malmberg, B. 2013. School Choice and Increasing Performance Difference: A Counterfactual Approach, *Urban Studies*, Vol. 50, No. 2, pp. 407-425.
- Ozga, J. and Jones, R. 2006. Travelling and Embedded Policy: The Case of Knowledge Transfer. *Journal of Education Policy*, Vol. 21, 1-17.
- Pelinka, A. 1996. Die (veränderte) Kultur bildungspolitischer Entscheidungen. W. Specht and J. Thonhauser (eds.), *Schulqualität*, Innsbruck, StudienVerlag, pp. 22-36.
- Pont, B., Nusche, D. and Hopkins, D. (eds.). 2008. *Improving School Leadership Policy and Practice*. Paris, OECD.
- Rhodes, R.A.W. 1991. The New Public Management. *Public Administration*, Vol. 69, pp. 3-23.
- Robin, S.R., and Sprietsma, M. 2003. Characteristics of Teaching Institutions and Students’ Performance: New empirical data from OECD data. http://www.ires.ucl.ac.be/DP/IRES_DP/2003-28.pdf (Accessed 19. 10. 2009).
- Rürup, M. 2007. *Innovationswege im deutschen Bildungssystem*. Wiesbaden, VS.
- Rürup, M. 2008. Schulautonomie in Deutschland – Konturen einer langfristigen Reform. http://www.ifb.uni-wuppertal.de/fileadmin/zbl/Ruerup/Ruerup_Schulautonomie_29022008.pdf; (Accessed 23.4.2015).
- Rürup, M., and Heinrich, M. 2007. Schulen unter Zugzwang – Die Schulautonomiegesetzgebung der deutschen Länder als Rahmen der Schulentwicklung. H. Altrichter, T. Brüsemeister and J. Wissinger (ed.), *Educational Governance*, Wiesbaden, VS, pp. 157-183..
- Scheerens, J., Ehren, M., Slegers, P., and de Leeuw, R. 2012. Country background report for the Netherlands. *OECD Review on Evaluation and Assessment Frameworks for Improving School Outcomes*. University of Twente;

- Schildkamp, K., Karbautzki, L., and Vanhoof, J. 2014. Exploring data use practices around Europe: Identifying enablers and barriers. *Studies in Educational Evaluation*, Vol.42, pp. 15-24.
- Schimank, U. 2007a. Die Governance-Perspektive: Analytisches Potenzial und anstehende konzeptionelle Fragen. Altrichter, H., Brüsemeister T., Wissinger J. (ed.), *Educational Governance*, Wiesbaden, VS, pp. 231-260.
- Schimank, U. 2007b. Elementare Mechanismen. Benz, A., Lütz, S., Schimank, U., Simonis, G. (ed.), *Governance – Ein Handbuch*, Wiesbaden, VS, pp. 29-45.
- Schlicht-Schmälzle, R., Teltemann, J., and Windzio, M. 2011. Deregulation of education: What does it mean for efficiency and equality? *TranState Working Paper 157*, Universität Bremen.
- Schneider, V., Kenis, P. 1996. Verteilte Kontrolle: Institutionelle Steuerung in modernen Gesellschaften. Frankfurt/New York, Campus.
- Sertl, M. 1993. Kurze Geschichte der Autonomiediskussion in Österreich. P. Posch & H. Altrichter (eds.), *Schulautonomie in Österreich*, Wien, BMUK, pp. 88-124.
- Summers, A. A. and Johnson, A. W. 1994. A review of the evidence on the effects of SBM planning. Paper presented at the Conference on Improving the Performance of America's Schools: Economic Choices. National Academy of Sciences, Washington, D.C.
- Tegge, D. 2015a. Kommunale Gestaltungsmöglichkeiten und Steuerungsinstrumente. H. Döbert and H. Weishaupt (ed.), *Bildungsmonitoring, Bildungsmanagement und Bildungssteuerung in Kommunen*, Münster, Waxmann, pp. 83-100.
- Tegge, D. 2015b. Steuerung von Bildung. H. Döbert and H. Weishaupt (ed.), *Bildungsmonitoring, Bildungsmanagement und Bildungssteuerung in Kommunen*, Münster, Waxmann, pp. 23-46.
- Thiel, F., Cortina, K. S. and Pant, H. A. 2014. Steuerung im Bildungssystem im internationalen Vergleich. R. Fatke and J. Oelkers (ed.). *Das Selbstverständnis der Erziehungswissenschaft: Geschichte und Gegenwart [Beiheft]*. *Zeitschrift für Pädagogik*, Vol. 60, pp. 123-138.
- Thiel, F., Heinrich, M. and Ackeren, I. van 2013. Editorial. Evidenzbasierte Steuerung im Bildungssystem? Befunde aus dem BMBF-Förderschwerpunkt Steuerung im Bildungssystem. I.v. Ackeren, M. Heinrich and F. Thiel (ed.), *Evidenzbasierte Steuerung im Bildungssystem? Die Deutsche Schule*, Vol. 105, No. 12. Beiheft, pp. 11-18.
- Visscher, A.J., and Coe, R. 2003. School performance feedback systems: Conceptualisation, Analysis and Reflection. *School Effectiveness and School Improvement*, Vol. 14, No. 3, pp. 321-349.
- UNESCO 2016. *Changing Dynamics in the Governance of Education: A Comparative Analysis of Emerging Issues and Reforms in Developing Countries*. Draft Report. Paris: UNESCO.
- Walberg, H.J., Paik, S.J., Komukai, A., and Freeman, K. 2000. Decentralization: An international perspective. *Educational Horizons*, Vol. 78, No. 3, pp. 155-165.
- Wissinger, J. 2014. Schulleitungshandeln und Schulentwicklung. H.G. Holtappels (ed.), *Schulentwicklung und Schulwirksamkeit als Führungsfeld*, Münster, Waxmann, pp. 123-140.