Britta Klopsch and Renata Rivkin Haag

Does the "Grammar of Schooling" Need to Change?

Transcultural Innovation after the Pandemic

Abstract. The current "grammar" of schooling is in many ways still based on an industrial model of schooling going back to the 19th century. In the 21st century and especially during the pandemic, this way of organizing schools is massively challenged and reveals its limitation. Interestingly the challenges are not country-specific. Many countries around the world face similar issues. This article points out four aspects of schooling that are the main areas of change to support students in their learning processes: (1) teacher collaboration in professional learning communities; (2) formative over summative feedback (3) close and trusting partnerships between teachers and parents and (4) the switch to hybrid learning environments. The text argues that these innovations provide a historic opportunity for sustainable change, not only for one school system but for all systems to learn from each other. If the pandemic is perceived as an opportunity to change the current situation rather than a problem that needs to be overcome to go 'back to normal', we can abandon the industrial model of schooling in favor of a 'school without walls' suitable for the digital knowledge society.

Keywords. Collaboration, feedback, grammar of schooling, learning environment, parents, transforming education

Muss sich die „Grammatik der Schulbildung" ändern?

Transkulturelle Innovation nach der Pandemie

Zusammenfassung. Die derzeitige „Grammatik" des Schulwesens basiert in vielerlei Hinsicht immer noch auf einem industriellen Schulmodell, das auf das 19. Jahrhundert zurückgeht. Im 21. Jahrhundert und insbesondere während der

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Pandemie wird diese Art der Organisation von Schulen massiv in Frage gestellt und zeigt ihre Grenzen auf. Interessanterweise sind die Herausforderungen nicht länderspezifisch. Viele Länder auf der ganzen Welt stehen vor ähnlichen Problemen. In diesem Artikel werden vier Aspekte der Schulbildung hervorgehoben, die die wichtigsten Bereiche für Veränderungen sind, um Schülerinnen und Schüler in ihren Lernprozessen zu unterstützen: (1) Zusammenarbeit der Lehrkräfte in professionellen Lerngemeinschaften, (2) formatives statt summatives Feedback, (3) enge und vertrauensvolle Partnerschaften zwischen Lehrer:innen und Eltern und (4) der Wechsel zu hybriden Lernumgebungen. Im Text wird argumentiert, dass diese Innovationen eine historische Chance für nachhaltige Veränderungen bieten, und zwar nicht nur für ein Schulsystem, sondern für alle Systeme, um voneinander zu lernen. Wenn die Pandemie als Chance zur Veränderung der gegenwärtigen Situation wahrgenommen wird und nicht als Problem, das überwunden werden muss, um ‚zurück zur Normalität' zu gelangen, können wir das industrielle Schulmodell zugunsten einer ‚Schule ohne Wände' aufgeben, die für die digitale Wissensgesellschaft geeignet ist.

Schlüsselwörter. Eltern, Feedback, Grammatik der Schule, Lernumgebung, Transformation der Bildung, Zusammenarbeit

1 Introduction

Reimagining the foundation and rules of education systems, the so-called grammar of schooling, i. e., "the regular structure and rules that organize the work of instruction" (cf. Tyack, Tobin 1994, p. 454) is not a new idea. However, the coronavirus (COVID-19) pandemic in early 2020 has maliciously disrupted societies worldwide, especially in terms of education, forcing schools to immediately take stock of how they are structured and run. To slow the spread of COVID-19, schools worldwide at the primary, secondary, and tertiary levels of schooling had to close their doors to students and teachers and needed to find alternatives to face-to-face classes and implement online or hybrid learning instruction. This incision in school life could be the chance to rethink the 'grammar of schooling'.

The starting point of lockdown as a cause for change is not rooted in viewing emergency digital instruction as a basis for appropriate contemporary education (cf. Döbeli Honegger 2020). Rather, the pandemic situation of homeschooling is perceived as a break in everyday school life, after which there is the possibility to go back to old patterns of schooling or to jointly develop a 'new normal' that cor-

responds to life in the knowledge society. In this context, changing the grammar of school for the knowledge society is not a call for a particular school system, but can be perceived as an international appeal. In many countries, teaching often still consists of teacher-centered classrooms where the teacher disseminates knowledge in the front of the classroom while students passively learn; students being grouped into fixed classrooms, standardized grading systems that emphasize standardized testing, fixed times for one subject that start and end with a bell, and so on. Even the way teachers communicate with parents about their child's learning has not changed much over the past decades. Communication typically occurs in person, such as in parent-teacher conferences, with teachers giving parents knowledge.

On the other hand, there is a world that changes fast, by some described as 'vuca' (cf. Mack, Kahre 2016), i. e., volatile, uncertain, complex, and ambiguous. The volatility and uncertainty of our students' (future) professional world can be seen, for example, in the fact that manual and cognitive routine activities are becoming increasingly automated and digitized, as a result of which certain occupational groups are gradually disappearing. In turn, interactive creative designing and cognitive-analytical activities are becoming increasingly important (cf. Levy, Murnane 2005). A wide variety of working tasks, therefore, require an actively acting, collaborative engagement with knowledge as well as the creative solving of tasks that go beyond the capabilities of machines (Chen, McDonald 2015). To provide students with the skills, competencies, and self-confidence to live economically independent and personally fulfilling lives as adults, individualized, personalized, and collaborative learning opportunities must be created to help each individual reach their full potential (cf. Sliwka, Klopsch 2022).

Preparing students to succeed in this world should not be a national endeavour, but a transcultural one. Transculturality means here that schools and school systems can involve, encompass or combine elements of more than one culture. Boarders of single cultures are dissolved and perspectives on teaching are seen beyond cultures. A transcultural view on schooling allows us in the search of connections to recalibrate perspectives, enhance self-reflection, and reconsider global entanglements (cf. Juneja, Kravanga 2013; Ryan 2013).

When looking at schools and school systems around the world, we can see, that there are four main areas that schools are working on to change routines into a new grammar (cf. Sliwka, Klopsch 2020b, 225). In a transcultural sense, it might be worthwhile to have a closer look at them, to find out how a school or a whole school system could reflect on them and add it in an appropriate way to their 'new normal'.

- From coexistence to collaboration of teachers (collaborative professionalism) – fostering a close and trusting cooperation and collaboration between the teachers in professional learning communities,
- from summative to formative performance feedback – developing a systematic implementation of formative feedback accompanying the learning process,
- from coexistence to a partnership between school and family and even community – building a trusting educational partnership between schools and parents, manifested in process standards and the school culture, and
- from closed to hybrid learning environment – understanding the school learning environment as a hybrid space, i. e., a 'school without walls,' in which learning in the school building, learning at home, and learning outside of school are merged into a coherent whole with and without digital networking.

Looking at these four dimensions of the 'grammar of schooling' can help educators to better reimage an education system in a post-COVID-digitalized world – scrutinizing where and to what extent opportunities can be taken to move education into a new digital knowledge society (cf. OECD 2018).

2 Transforming from Coexistence to Collaborative Professionalism

Many teachers – especially in Germany – often still teach autonomously in schools in an isolated way and rarely or very rarely talk about teaching with their colleagues (cf. Klopsch et al. 2020) throughout their whole professional career. Nevertheless, it seems desirable to establish cooperation in everyday school life. Empirically, the benefit from collaboration can be shown concerning all three levels of school development: At the organizational level, joint work leads to a common achievement of goals (cf. Fussangel, Gräsel 2014). At the staff level, collaboration increases job satisfaction (OECD 2013), jointly made decisions are of higher quality (cf. Dalin et al. 1996), and collaboration triggers mutual learning (cf. Chen, Hong 2016). Effects can be seen on the classroom level as well. Cooperating teachers teach with more variation, more effectively, and more creatively than their colleagues who work in isolation. Collaborative work also includes a stronger focus on students' learning outcomes (cf. Vangrieken et al. 2015), which can help increase student achievement (Ihme et al. 2012).

The underlying deep form of collaboration leads to "collaborative professionalism" (Hargreaves, O'Connor 2018). It describes "how teachers and other educators transform teaching and learning together to work with all students

to develop fulfilling lives of meaning, purpose, and success" (ibid., p. 3). It is a foundation of the school culture where teachers as professionals collaborate in response to caring for students, have solidarity with one another, and actively care for each other. Teachers bring their interests, backgrounds, and strengths into a project when they collaborate thus diversifying best practices.

However, not only teachers gain from working together. Collective teacher efficacy, which develops when teachers collectively believe they have a stronger ability to promote successful student outcomes within their school is repeatedly shown to be the greatest factor in improving student achievement (cf. Hattie 2018). Collective efficacy is high when most teachers believe they can help students master complex content, foster creativity, and get students to believe that they can do well in school (cf. Denohoo, Velasco 2016). Teachers must therefore collaborate more deeply with other teachers, their students, the parents of their students, and the learning environment (stakeholder community). With the increased use of educational technology (EdTech), communication and collaboration can take place almost anywhere at any time outside of the school walls.

3 Transforming from Summative to Formative Performance Feedback

Feedback is crucial for motivating students and enabling them to realize what they understand, thus develop their individual learning further. Feedback at the end of a topic, final project, research report, or course in the form of a grade, is called summative feedback (cf. Black, Wiliam 1998) and constitutes a stronghold of the old grammar of schooling. 21st-century learning involves additional feedback that is frequent, motivational, informative, and corrective (cf. Buczynski 2009) to improve learning within the learning process. This is called formative feedback (cf. Black, Wiliam 1998). It is empirically proven that students receiving feedback about a task and how to do it more effectively has the highest effect sizes (cf. Hattie, Timperley 2007, p. 84). Formative Feedback engages learners constantly. It provides scaffolding to support learning improvements and signals to students when there is a gap in their learning. With the aid of digital technology, teachers can give students formative feedback easily during class time but also beyond.

Formative feedback gives students more autonomy over their learning and enables learners to develop themselves in a targeted way. When students have more control over what they are learning, how, and why, intrinsic motivation increases (cf. Ryan, Deci 2000; Pink 2009). Pink (2009) argues the desire to do something

because it is interesting, challenging, and absorbing is one of the most powerful drivers of self-learning. Students who have voice and choice in their learning processes exceed expectations by finding ways to help themselves and collaborate with others (cf. Fullan et al. 2020). Formative feedback thus helps to develop a dynamic self-concept (cf. Dweck 2006), i. e., to believe in oneself and to go to work with greater confidence to succeed. It is about learners not being demotivated by challenges in the learning process, persevering through dry spells, and seeking creative ways of solving problems to successfully master learning processes individually or with others (cf. Nottingham 2017).

4 Transforming from Coexistence to Partnership between School and Family (School Community Partnerships)

Through the COVID-19 school closings, the world has experienced first-hand just how important ongoing communication is between teachers, students, parents, and teacher colleagues. Research has consistently shown that the communication between parents, teachers, and learner stakeholders (other family members, caretakers, supporting teachers, social workers, etc.) plays a significant role in the ease of socialization and educational achievement of students in primary as well as secondary school (cf. Palts, Kalmus 2015). When parents are informed and involved in their child's school, students show a more positive attitude towards homework and school in general and have better academic performance and higher attendance rates (cf. Epstein 2001; American Federation of Teachers 2013).

When communication takes place regularly between teachers and parents, it builds a social system and network which helps support the student. Parents can feel more knowledgeable, better prepared, and supported and therefore play a healthier role in their children's education (American Federation of Teachers 2013). Teachers benefit from better communication in that they learn more about their students and their individual needs, their home environments, and how to better personalize their students' learning. Parents who experience more effective teacher communication also have a more positive view of teachers, which results in teachers having improved morale.

The community is also a valuable resource for schools to partner with. Holloway (2004) argues that to improve student performance we must focus on the community as a whole not just on the school. Strong school-community partnerships help improve student behavior, increase school attendance, and add quality to school programs (cf. Zyngier 2011). Communities also can help reduce non-academic hurdles to learning including family conflicts, poor peer relations, disor-

ganization, and mentoring (cf. Anderson-Butcher et al. 2006). School-community partnerships build collective commitments by students, families, teachers, and leaner stakeholders. When there is collective commitment, learners stay and perform better in school (cf. Israel, Beaulieu 2004). Furthermore, these partnerships provide schools with a broader range of resources they can access.

5 Transforming from a Closed to a Hybrid Learning Environment

Traditionally, school is a closed learning environment. Learners are divided into classrooms where they learn with a teacher. The knowledge they are taught comes mainly from the teacher or books. The school as a learning space is largely separated from the world outside the school. The basic idea of developing a hybrid learning environment is to perceive all areas of life, work, and learning of the students as well as of the teachers as an opportunity for the holistic design of learning processes. This includes thinking not only about the concrete environment of the participants but also about digital transformation (cf. Vial 2019).

A hybrid learning environment then emerges through the systematic use of digital opportunities as well as the involvement of extracurricular educational venues and experts. Teachers and learners expand the traditional learning space and create a "school without walls" (Sliwka, Klopsch 2020b, p. 225) by thinking about and incorporating multiple digital and extracurricular opportunities as needed. Developing a "school without walls" means framing the learning environment more broadly beyond the classroom. This extended framing affects two options of action (cf. Sliwka, Klopsch 2022, p. 323):

- The expansion of physical space, which can range from changing the pedagogical use of space in the school to working with educational partners on site, as well as
- the digital expansion of the classroom by taking advantage of the many opportunities offered by digitization.

When both approaches are linked, learners perceive school as a place where learning and living spaces are like one single thing with different areas, that influence each other. Educational partners may or may not now be on-site. Digital offerings from other parts of the country or even from another country are now also actively used as learning occasions.

6 Living a 'New Grammar'

When having a closer look at other school systems, i. e., taking transcultural learning on the structural and systemic level seriously, it is important to see what is lived elsewhere but also to figure out how these things could fit into the own school system, or even own school, depending on what level change agents are working. A change is implemented best when working from both sides, bottom-up as well as top-down (cf. Hargreaves et al. 2018). The merging of innovations from both directions requires horizontal and vertical alignment. In horizontal terms, this means that innovations do not just remain in individual schools. When different schools join in together to form professional learning communities learning takes place from and with each other. Vertical alignment occurs when schools, school boards, and ministries work together on change (cf. Klopsch, Sliwka 2020). In a transcultural sense, changes in a system would be possible if alignment is not only thought of in national terms but if teachers from different countries constantly develop and apply impulses together. Just as representatives of different system levels could do. In this way, a closely-meshed network could be created that helps to develop innovations not only in one country but to implement them transculturally for the benefit of all children in the world.

The following international examples briefly give ideas of how a change in the four main areas mentioned above, i. e., working together, enabling formative feedback, working with parents and the community, and designing hybrid learning environments can look like on the system level and single school level. The examples show how change could be implemented from both perspectives, top-down and bottom-up – individually or even interconnected.

6.1 Establishing Cooperation Structures

Close cooperation between teachers is evident on the systemic side in Japan, for example. Teachers work there with "Lesson Study" (Klopsch 2022; Kuno 2017). It is an established procedure that enhances the development of teachers as well as classroom learning. All teachers involved plan lessons together, teach the lessons, and analyze them according to student learning. Within this process, teachers not only learn about teaching and student learning but also learn from each other. Systemic penetration is evident in the fact that Lesson Study has taken hold not only in individual schools but as a common professional development format throughout the country (cf. Kuno 2017).

An example of how cooperation can be triggered in schools is shown by Project Schools 80-10 in Germany. Here, teacher work time models have been rethought and modified to introduce mandatory collaboration time. Time slots for a lesson are reduced from 90 to 80 minutes and all 10 minutes left are summed up for collaboration. The students take these times to work individually or in groups online (cf. Klopsch, Sliwka forthcoming).

6.2 Enabling Formative Feedback

A new way of dealing with feedback in schools is practiced on a systemic level in Finland. There, the Wilma communication platform was introduced in 2000, where teachers structure learning, teach digitally supported lessons, conduct assessments, and provide feedback to learners (cf. Alanko, Alasuutari 2021). Decoupling this from classroom time has the advantage of allowing teachers to spend their time there on individualized support, while also providing feedback to all learners at a flexible time that advances their learning. Another benefit of learning online is, that parents can see what their children are doing and what kind of feedback they are getting.

In New Zealand and Australia several schools use the SOLO (structure of observed learning outcomes) taxonomy for feedback discussions on the content side. The learners know the taxonomy with its levels and can thus specifically describe their learning developments and formatively discuss with the teachers how their learning processes can be improved (Dudley, Baxter 2008). Schools in Germany that are implementing Deeper Learning in their curriculum are currently starting to give feedback in a systematic and targeted way (cf. Sliwka, Klopsch 2022).

6.3 Working with Parents and the Community

Partnering with parents and specific community agencies to help improve student learning can be viewed on a systemic level in Alberta, Canada. There, schools are perceived as hubs, which means that the school perceives itself to be at the center of the local community; this community is, in turn, actively included in school life. This does not only mean that extracurricular activities are added. Different support systems are also located directly in the school building to create short pathways that help support all learners in the best possible way (cf. Klopsch 2019a).

In Ontario, Canada, individual schools regularly host subject-specific nights, such as Math Night (cf. Sliwka, Klopsch 2020a). The focus of each 'Family Math Night' is a shared engagement with mathematics. Parents are given insights into what their children are learning in math at school and why they are doing it. Parents are thus involved in their children's school life, which helps them understand how important their interest in school content is to their children's learning (cf. Furner 2018). In particular, schools with an enormous mix of heterogeneous students benefit greatly from joint 'Family Nights.' This is in part because parents who have struggled with learning – learning in general or learning subjects such as maths – themselves gain positive access to their children's learning (cf. Knowles, Harris, Van 2017). Families share positive experiences in school, open up about learning, and gain insights into school work that would otherwise elude them.

6.4 Developing Hybrid Learning Environments

The idea of opening a learning environment to the community to make learning processes more holistic dates back to the days of reformist education. It has been spreading to mainstream schools over the past decade. The focus here is often on engaging in learning processes in a holistic way, and in doing so, experiencing interdisciplinary competencies in addition to the subject-specific competencies. One form of such learning is service learning, which originated in the USA but is now also widely used in Germany (Seifert, Zentner 2010). It describes a project-oriented form of teaching and learning that combines subject-specific and interdisciplinary learning with community service. Central to this is the balance between students' subject-specific and transdisciplinary learning and their related engagement in and for the community (cf. Klopsch, Sliwka 2019b).

On a systemic level, a large-scale expansion of the school learning environment is evident in Boston's Campus without walls schools (Campus without Walls 2022). Teachers in these schools offer content courses in a variety of subjects, all delivered in online courses. Students can decide where to take the subjects now by independently prioritizing them according to their interests and then taking the courses online at different schools. The spatial restriction to their school is thus eliminated.

7 Conclusion

In the title we raised the question of whether schools need a new grammar and what transcultural innovations could be introduced. Every school system in this world has its grammar, which has grown historically and corresponds to the respective society. Globalization made the world smaller and the needs of schools are converging. A new, perhaps more similar grammar of schooling becomes necessary to tackle the challenges together. To work on such grammar teachers, school leaders and school administration should develop "transcultural competence" (Wulf 2010, p. 46) to successfully go through joint developments and projects. However, such competence can only develop if framework conditions prevail that are supportive. Alignment within the school system and the willingness of teachers, principals, and administrators to identify and actively use points of contact is essential for serious transcultural work.

It might be helpful to start working on the main areas before handling specific subthemes. These main areas of change seem to be necessary for how holistic learning environments can arise, that support students and teachers. A core part of this could be the challenge to constantly enhance and accompany the learning processes of students as well as their teachers.

If we want to prepare students for a successful life after school, we need to communicate, uncover great common lines, and support each other. This text aimed to contribute to thinking about what a contemporary grammar might look like and what elements we can work on together – in transcultural connectedness. Innovative change for better teaching and learning is needed in all systems around the world. As the world changes school systems need to change to adapt to it. It does not matter whether we are system leaders or teachers. All of us can contribute together to change the way we learn if we dare to think outside the box and immerse ourselves in unknown cultures to learn from them.

Bibliography

Alanko, Anu and Alasuutari, Maarit (2021). The Web Service Wilma as an Actant in School Life. Student Perspective. In: M. Alasuutari, M. Mustola and N. Rutanen (eds.): Exploring Materiality in Childhood. Body, Relations, and Space. Routledge: London, p. 73–88

American Federation of Teachers (2013). Building Parent-Teacher Relationships. American Federation of Teachers. Washington DC: Reading Rockets. https://

www.readingrockets.org/article/building-parent-teacher-relationships [08.12.2022]
Anderson-Butcher, Dawn; Stetler, E. Gwyn and Midle, Theresa (2006). A Case for Expanded School-Community Partnerships in Support of Positive Youth Development. In: Children & Schools, 28, p. 155–163
Black, Paul and Wiliam, Dylan (1998). Inside the Black Box. Raising Standards through Classroom Assessment. London: King's College
Buczynski, Sandy (2009). Formative Feedback Stimulates Students' Thinking and Provides Teachers with Information to Guide Future Instruction. 10 Tips for Providing Formative Feedback. https://www.csun.edu/sites/default/files/Holle-Formative-Feedback.pdf [08.12.2022]
Campus Without Walls (2022). https://www.campuswithoutwalls.org/ [08.12.2022]
Chen, Wenhong and McDonald, Steve (2015). Do Networked Workers Have more Control? The Implications of Teamwork, Telework, ICTs, and Social Capital for Job Decision Latitude. In: American Behavioral Scientists, 59, p. 492–507. https://doi.org/10.1177/0002764214556808 [08.12.2022]
Dalin, Per; Rolff, Hans-Günter and Buchen, Herbert (1996). Institutioneller Schulentwicklungsprozess. Bönen: Landesinstitut für Schule und Weiterbildung NRW
Datnow, Amanda and Park, Vicki (2019). Professional Collaboration with Purpose. Teacher Learning Towards Equitable and Excellent Schools. New York: Routledge
Donohoo, Jenni and Velasco, Moses (2016). The Transformative Power of Collaborative Inquiry. Thousand Oaks: Corwin
Dudley, Dean A. and Baxter, David (2008). Assessing for Deeper Understanding in Tertiary Examinations in Physical Education Using SOLO Taxonomy. In: Australian College of Educators Online Refereed Articles, 52, p. 1–14
Döbeli Honegger, Beat (2020). Warum sich der Covid-19-Notfallfernunterricht nicht als Diskussionsgrundlage für zeitgemässe Bildung in einer Kultur der Digitalität eignet. https://beat.doebe.li/publications/2020-beat-doebeli-honegger-warum-sich-der-notfallfernunterricht-nicht-als-diskussionsgrundlage-eignet.pdf [08.12.2022]
Dweck, Carol S. (2006). Mindset. The New Psychology of Success. New York: Random House
Epstein, Joyce Levy (2001). School, Family, and Community Partnerships. Preparing Educators and Improving Schools. Boulder, CO: Westview Press
Fullan, Michael; Quinn, Joanne; Drummy, Max and Gardner, Mag (2020). Education Reimagined. The Future of Learning. Remote to Hybrid Learning. A Posi-

tion Paper on a Paradigm Shift for Education. http://aka.ms/HybridLearning-Paper [08.12.2022]
Furner, Joseph M. (2018). Planning a Family Math Night-The How To's. A Checklist for Success. In: Transformations 4:1. https://nsuworks.nova.edu/transformations/vol4/iss1/2 [08.12.2022]
Fussangel, Kathrin and Gräsel, Cornelia (2014). Forschung zur Kooperation im Lehrerberuf. In: E. Terhart, H. Bennewitz and M. Rothland (eds.): Handbuch der Forschung zum Lehrerberuf. Münster: Waxmann, p. 846–864
Hargreaves, Andy and O'Connor, Michael T. (2018). Collaborative Professionalism. When Teaching Together Means Learning for All. Corwin: New York
Hargreaves, Andy; Shirley, Dennis; Wangia, Shanée; Bacon, Chris and D'Angelo, Mark (2018). Leading from the Middle. Spreading Learning, Wellbeing, and Identity across Ontario. Toronto. http://ccsli.ca/downloads/2018-Leading_From_the_Middle_Final-EN.pdf [08.12.2022]
Hattie, John (2018). 252 Influences and Effect Sizes Related to Student Achievement. https://visible-learning.org/hattie-ranking-influences-effect-sizes-learning-achievement/ [08.12.2022]
Hattie, John and Timperley, Helen (2007). The Power of Feedback. In: Review of Educational Research 77:1, p. 81–112. https://journals.sagepub.com/doi/full/10.3102/003465430298487 [08.12.2022]
Holloway, John H. (2004). Research Link. In: Educational Leadership, 61:7, p. 89–90
Ihme, Toni Alexander; Schwartz, Katja and Möller, Jens (2012). Kooperatives Lehren. Theoretische Annahmen und empirische Befunde. In: S. Huber and F. Ahlgrimm (eds.): Kooperation. Aktuelle Forschung zur Kooperation in und zwischen Schulen sowie mit anderen Partnern. Münster: Waxmann, p. 125–140
Israel, Glenn D. and Beaulieu, Lionel J. (2004). Laying the Foundations for Employment. The Role of Social Capital in Educational Achievement. In: The Review of Regional Studies, 34, p. 260–287
Juneja, Monica and Kravagna, Christian (2013). Understanding Transculturalism. Monica Juneja and Christian Kravagna in Conversation. In: M. Hille, C. Kravagna and M. von Osten (eds.): Transcultural Modernisms. Berlin: Sternberg Press, p. 22–33
Klopsch, Britta (2019). Ganzheitliche Unterstützung von Anfang an. Impulse zum Umgang mit Heterogenität aus der Provinz Alberta. In: R. Kruschel and D. Jahr (eds.): Inklusion in Kanada. Internationale Perspektiven auf heterogenitätssensible Bildung. Beltz: Weinheim, p. 241–254
Klopsch, Britta and Sliwka, Anne (2019). Service Learning als "deeper learning". Durch soziales Engagement (über-)fachliche Kompetenzen fördern. In: D. Jahn, A. Kenner, B. Heidkamp and D. Kergel (eds.): Kritische Hoch-

schullehre. Impulse für eine innovative Lehr-/Lernkultur. Wiesbaden: Springer Verlag, p. 163–181

Klopsch, Britta and Sliwka, Anne (2020). Schulqualität als Resultat eines "komplexen adaptiven Systems". Die Verschränkung von Systemebenen zur Verbesserung des Schülerlernens. Datengestützte Schulentwicklung in der Provinz Alberta, Kanada. In: D. Fickermann, V. Manitius and M. Karcher (eds.): "Neue Steuerung". Renaissance der Kybernetik? Die Deutsche Schule, Beiheft 15. Waxmann: Münster, p. 58–74

Klopsch, Britta (2020). Teachers' Cooperation in Baden-Württemberg, Germany. Does School Type Matter? In: Journal of Education and Teaching Methodology, 1:1, p. 44–52

Klopsch, Britta (2022). Lesson Study. Unterrichtsentwicklung durch gemeinsame Beobachtung und Beurteilung von Lehr-Lernprozessen. In: Seminar 28:3, p. 102–115

Klopsch, Britta and Sliwka, Anne (forthcoming). Zeitmodelle. In: Schule leiten. Hannover: Friedrich Verlag

Knowles, Christen; Harris, Anne and Van Norman, Renee (2017). Family Fun Nights. Collaborative Parent Education Accessible for Diverse Learning Abilities. In: Early Childhood Education Journal, 45:3, p. 393–401

Kuno, Hiroyuki (2017). Reconstruction of National Curriculum and Development of Interdisciplinary Learning in Japan. In: Journal of Social Studies Lesson Study, 5:1, p. 1–11

Levy, Frank and Murnane, Richard J. (2005). The New Division of Labor. How Computers are Creating the Next Job Market. Princeton: Princeton University Press

Mack, Oliver and Khare, Anshuman (2016). Perspectives on a VUCA World. In: O. Mack, A. Khare, A. Krämer and T. Burgartz (eds.): Managing in a VUCA World. Cham: Springer, p. 3–20

OECD (2018). The Future of Education and Skills. Education 2030. Paris: OECD

Palts, Karmen and Kalmus, Veronika (2015). Digital Channels in Teacher-Parent Communication. The Case of Estonia. In: International Journal of Education and Development Using Information and Communication Technology (IJEDICT), 11:3, p. 65–81. https://files.eric.ed.gov/fulltext/EJ1086652.pdf [08.12.2022]

Pink, Daniel H. (2009). Drive. The Surprising Truth About What Motivates Us. New York: Penguin Publishing Group

Ryan, Janette (2013). Introduction. In: J. Ryan (ed.): Cross-Cultural Teaching and Learning for Home and International Students. Internationalisation of Pedagogy and Curriculum in Higher Education. London and New York: Routledge, p. 1–12

Ryan, Richard M. and Deci, Edward L. (2000). Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. In: American Psychologist, 55:1, p. 68–78. https://doi.org/10.1037/0003-066X.55.1.68 [08.12.2022]

Seifert, Anne and Zentner, Sandra (2010). Service Learning. Lernen durch Engagement. Methode, Qualität, Beispiele und ausgewählte Schwerpunkte. Weinheim: Beltz

Sliwka, Anne and Klopsch, Britta (2020a). Der etwas andere Familienausflug. Family Math Night. In: Futur Magazin. Mathematik auf Schritt und Tritt – von der frühkindlichen Bildung bis zum Berufseintritt, RuhrFutur, p. 20–23

Sliwka, Anne and Klopsch, Britta (2020b). Disruptive Innovation! Wie die Pandemie die "Grammatik der Schule" herausfordert und welche Chancen sich jetzt für eine "Schule ohne Wände" in der digitalen Wissensgesellschaft bieten. Die Deutsche Schule, Beiheft 16. Münster: Waxman Verlag, p. 216–229. https://doi.org/10.31244/9783830992318.14 [08.12.2022]

Sliwka, Anne and Klopsch, Britta (2022). Deeper Learning. Pädagogik des digitalen Zeitalters. Weinheim: Beltz

Tyack, David and Tobin, William (1994). The "Grammar" of Schooling. Why Has it Been so Hard to Change? In: American Educational Research Journal, 31:3, p. 453–479

Vangrieken, Katrien; Chloé Meredith; Tlalit, Packer and Kyndt, Eva (2017). Teacher Communities as a Context for Professional Development. A Systematic Review. In: Teaching and Teacher Education, 61, p. 47–59. https://doi.org/10.1016/j.tate.2016.10.001 [08.12.2022]

Vial, Gregory (2019). Understanding Digital Transformation. A Review and a Research Agenda. In: The Journal of Strategic Information Systems, 28:2, p. 118–144. https://doi.org/10.1016/j.jsis.2019.01.003 [08.12.2022]

Wulf, Christoph (2010). Education as Transcultural Education. A Global Challenge. In: Educational Studies in Japan. International Yearbook, 5, p. 33–47

Zyngier, David (2011). Raising Engagement and Enhancing Learning. School Community Partnerships That Work for Students at Promise. In: Creative Education, 2:4, p. 375–380. http://doi.org/10.4236/ce.2011.24053 [08.12.2022]

Authors

Dr. Britta Klopsch. Since 2020 tenure track assistant professor for school pedagogics at the Karlsruhe Institute for Technology (KIT). Research focuses: school and teaching developments in practice, quality development and

quality assurance in the school system, internal and external evaluations of schools, professionalization of teachers
britta klopsch@kit.edu

Renata Rivkin Haag, M.A. Until July 2022 research assistant at the Karlsruhe Institute of Technology, now employment at Boston Public Schools. Research focuses: hybrid school development, educational disadvantages
rivkin6@hotmail.com

Correspondence Address:
Jun.-Prof. Dr. Britta Klopsch
Institut für Schulpädagogik und Didaktik des KIT
Engesserstr. 6
76131 Karlsruhe