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Volman, M.; Gaikhorst, L.; Veerman, E.

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5 Funds of knowledge/identity pedagogies and social justice in Dutch primary education

Monique Volman, Lisa Gaikhorst, and Edda Veerman

Introduction

In the Netherlands, as in other countries, many students experience a gap between what they learn at home and what they are taught in school. At the same time, teachers may not always recognize the knowledge and skills that students have already acquired outside of school, especially when they have a different cultural or social background than their students. Such a discontinuity between school and home is often interpreted as a deficit on the part of students from an ethnic minority or lower SES background. Shortcomings of these students, their parents, families, and communities are emphasized, and the school is seen as an institution that should compensate for these deficits.

Since 2016, we collaborate with several primary school boards in and around the city of Amsterdam (The Netherlands) in the Educational Research Lab Amsterdam (ERLA). This is a teacher–researcher collaboration network that addresses issues related to diversity and equity in education through practice-oriented research. Right from the start, the funds of knowledge (FoK) approach appealed to both the ERLA teachers and researchers, for several reasons. Firstly, because it focuses on students’ competences instead of their deficits. This fits our vision on diversity—which we see as an asset instead of a problem—and on inequality—which we consider a societal problem and not the result of individual failing. Secondly, it is also a practical approach, since it suggests concrete ways in which teachers can take diversity in their classrooms into account, by making the knowledge and experiences that students acquire in the context of their families, communities, and peer groups and building upon these in their lessons to promote and support learning (González et al., 2005; Llopart & Esteban-Guitart, 2017; Saubich & Esteban-Guitart, 2011).

Over the past five years, we have carried out several research projects in which teachers and researchers collaborated to get a better understanding of funds of knowledge and identity (FoK/I) pedagogies and to develop concrete approaches and materials that support FoK teaching practices. In this chapter, we present these projects and discuss what they have yielded in terms of

knowledge and teaching practices. We also reflect on a number of challenges we encountered. We conclude by discussing in what way these practices can be characterized as aimed at and contributing to “social justice.”

An Educational Research Lab as context for collaboration around FoK/I

Collaborative action research in the ERLA

Our university collaborates with several primary school boards in the ERLA; we conduct practice-oriented research focused on issues related to diversity and equity in education. Our work is based on a shared perspective on diversity, which we characterize as multidimensional and positive. Multidimensional refers to the observation that in the superdiverse educational context of Amsterdam, students differ on many dimensions. They identify with or are identified by social categories like gender, socioeconomic status (SES), ethnic background, religion, etc., but they also differ in individual characteristics like personality, cognitive capacities, interests, etc. Our perspective is positive because we think that making room for what students bring into the classroom in terms of different perspectives, knowledge, and experiences enriches teaching and learning. This goes beyond a celebration of difference; taking diversity into account also entails being aware of the harsh living conditions of some students that are caused by societal inequalities and injustice. It also requires a critical consciousness of one’s own perspectives, values, and prejudices.

When we introduced the FoK approach in our collaboration with primary schools, teachers found it inspiring. Several teachers expressed the wish to more systematically identify their students’ FoK and draw on these in their teaching. However, they felt the literature did not offer enough support for their specific situation. Whereas in most studies on using students’ FoK, classrooms are composed of students from one or two cultural communities, some of the participating schools were populated by students from several cultural communities and families that did not belong to a community at all. Also, the teachers mentioned that in their students’ lives often social media, internet, gaming, and popular culture, seemed more important sources of knowledge than the family and the community. Moreover, whereas much of the FoK work relies on teachers doing ethnographic research in their students’ communities (González et al., 1995), this is out of reach for teachers in Amsterdam, where in most schools even home visits have been abandoned, because of financial and sometimes safety reasons.

This was the reason that we initiated a collaborative action research project in which 13 teachers participated in 2017 (‘t Gilde & Volman, 2021; Volman & ‘t Gilde, 2021). The project had a threefold aim. Our first aim was to develop an overview of methods for working with FoK that would be useful and inspiring for other teachers in a superdiverse context. Second, we were interested in the effects of using students’ FoK on students’ personal and social functioning and on social cohesion in the classroom. Third, we also

aimed to contribute to the theory of FoK, as the specific situation in the participating teachers asked for adaptation of the original FoK approach.

In order to achieve the first aim, we inventoried examples of good practice of working with students' FoK in the literature and in the schools of the participating teachers. Based on this, teachers experimented with new ways of finding and building on students' FoK in their own classrooms, and teachers and researchers collaboratively discussed and analyzed the teachers' experiences.

For establishing the effects of our FoK approach, we set up a mixed methods quasi-experimental study. We treated the process in which teacher experimented with uncovering and drawing on their students' FoK as an intervention. We hypothesized that the intervention would positively affect (1) students' social well-being in terms of their relationship with the teacher, (2) their social well-being in terms of their relationships with other students, (3) students' attitudes towards dealing with differences, (4) skills in dealing with differences, (5) the perceived focus on personal development of the lessons in their school, and (6) the social network in the classroom. We asked students in the teachers' classrooms and in four control classes ($N = 299$) to complete questionnaires measuring these variables and conducted interviews with teachers ($N = 13$) and students ($N = 67$).

As to the theoretical contribution that we aimed for, interestingly, soon after we started the project, we encountered the theory of funds of identity (FoI), which seemed to respond to a similar need for adaptations and extensions of the FoK approach as we had identified; the FoI theory acknowledges that there are more sources of knowledge and skills that are relevant and meaningful for students than the family and the community. Moreover, it suggests methods for uncovering students' FoK/I in ways that are more within reach of our teachers.

Results

As to our first aim, developing an overview of methods for working with FoK that is useful and inspiring for teachers in a superdiverse context, our study resulted in a booklet that presents a framework categorizing FoK/I-related teaching activities and that illustrates these with examples from classrooms in Amsterdam ('t Gilde & Volman, 2021). We distinguished ways in which teachers can *find* such FoK/I and ways in which they can *build on* these. Ways of *finding students' FoK/I* were: Through conversations with parents and colleagues; by purposefully gathering information (e.g., through questionnaires, observations, and conversations with students); through teaching activities during lessons; and often FoK/I was also found accidentally. We categorized the ways in which teachers can *build on students' FoK/I* along two dimensions. The first dimension distinguishes between the individual versus collective character of students' resources; teachers can either focus on an individual student or draw on FoK/I of a group of students or the whole class.

The second dimension concerns the scope of the teaching activities. Teachers can build on students' FoK/I in activities that vary from brief or longer conversations to whole lessons and even projects.

We concluded that the knowledge that teachers uncovered during the project can indeed be characterized as FoI; it concerned knowledge that students experienced as meaningful and as part of who they are. Some examples were obviously FoK; knowledge that students acquire in their families and community, such as knowledge of language, religion, traveling, pets, construction tools, emotions, or certain types of food. However, many examples concerned popular culture and peer group knowledge, as was already suggested by Moje et al. (2004): Computer games, rap music, dancing, and sports. We did find some of the types of FoI that were distinguished by Esteban-Guitart (2012) in our data. However, they were unevenly represented. Cultural and practical funds were best represented, followed by geographical and social FoI. Students showed and explained cultural symbols such as the flag, a dish, and a traditional dance from their country of origin; children taught words from their mother tongue to fellow students; and parents came to talk about their religion and culture. Students also talked a lot about practical FoI: Doing repair work in the home, shopping for flowers, playing a musical instrument or practicing a sport, and also leisure activities such as playing *Fortnite*, *Minecraft*, or listening to or singing popular songs. As for the geographical category, children told the teacher about animals or a tree they knew or saw in their country of origin or where they went for visiting family, such as Morocco and Curacao. Finally, children mentioned parents, grandparents, and other family members in their stories and schoolwork. The category of institutional funds and the category of existential funds that was proposed by Poole and Huang (2018) did not really occur.

As to our second aim, establishing the effects of using an FoK/I approach, the results were confusing (Volman & 't Gilde, 2020). Based on the analysis of the data from the student questionnaires, all hypotheses had to be rejected; no significant effects were found. However, in interviews and focus groups, teachers and students reported many positive effects. Teachers noticed that student engagement in FoK/I-related activities was high. They also reported the effects of students taking more initiatives, responsibility, and acting independently. They mentioned improved collaboration skills and attitudes towards learning; students who were challenged to try out activities they previously did not dare, to reflect, and to keep practicing. For a number of individual students, teachers noticed a positive effect of the attention for their FoK/I on self-confidence and well-being in the classroom. Positive experiences in FoK/I-related activities also seemed to affect students' ambitions, with some students even regaining confidence in their ability to perform well on school assignments. Finally, teachers mentioned another type of effect and mechanism: Being confronted with aspects of their classmates' lives that were previously unknown to them (food, language, celebrations), provided students with new perspectives and contributed to developing a more open

mind. In terms of the social cohesion in the classroom, teachers described that students got to know each other better, which contributed to a safe, positive atmosphere in the classroom. Teachers reported increased respect and a reduction of prejudices among the students and improved interaction: Listening, being curious and interested, and asking questions.

Reflections

In this project, we found that the FoK approach inspires teachers in a superdiverse context, but needs adaptations, such as those suggested by the FoI theory. Together with teachers, we were able to come up with ideas for how FoK/I of primary school students can be found and built on. Participating teachers mention that the project encouraged them and their colleagues to look at their students in new ways and that it improved the learning climate in their classrooms. Interestingly, teachers also mentioned that, through this project, they felt acknowledged in a part of their professionalism that is often overlooked with the current emphasis on student achievement as expressed in test scores. In a way, the project thus also addressed teachers' own FoK/I. Other schools within the participating school boards also developed an interest in the FoK/I approach and "FoK" has become a catchword within these boards. The fact that several schools chose to work with the FoK/I approach in a follow-up project is a case in point. However, in spite of the enthusiasm and effects that teachers and their colleagues experienced, we could not prove any of the hypothesized effects with quantitative measures.

Theoretically, in the end, the contribution of this study is not that we adapted or extended the FoK theory with insights about how to integrate knowledge and skills that students acquire outside the family and community or with insights about how to apply this approach in a superdiverse context. During the project, we found out that this had already been done with the introduction of the notion of FoI. Instead, we would like to point out some possible pitfalls and challenges for teachers that we identified during our project. First of all, although the FoK/I approach emphasizes that every student has knowledge and experiences that are worthwhile, some teachers seemed to be drawn towards revealing special talents of individual students. Another pitfall is to overemphasize differences between students and adopt an essentialist or folkloristic approach that focuses on food, dance, and music when drawing on students' cultural backgrounds (Gay, 2003). Thirdly, drawing on students' FoK/I is not only about making teaching more motivating by focusing on issues that are familiar to students. Using students' FoK/I aims to go deeper and further than that. It aims to make students experience that their knowledge and skills are worthwhile, while at the same time connecting these with the curriculum that students are supposed to master and thus bridge the gap that may exist between students' experiences in and out of school. Finally, we noticed that actively acknowledging and building on students' FoK/I is much more challenging for teachers in schools

that rely on textbook-driven teaching than in schools with a more open and emerging curriculum.

Equal educational opportunities as context

The start of a new ERLA project on educational equality

FoI became one of the main themes in a new three-year ERLA project on equal opportunities in primary education that started in 2019 (Veerman et al., 2023). In this project, researchers from three knowledge institutes (including the University of Amsterdam) and teachers from three primary schools in Amsterdam collaboratively designed, implemented, and evaluated educational interventions based on the FoI theory. The aim of this project was to investigate whether these interventions contribute to more equitable educational outcomes in primary education, by bridging the gap between school and home. Discontinuity between school and home is an important reason why some students perform below their capacities. The FoI theory addresses one of the underlying mechanisms; teachers may not recognize the value of knowledge and skills that minority and lower-SES students acquire outside of school. Drawing on students' FoI is therefore supposed to contribute to more equitable educational outcomes. Whereas research into educational equality usually focuses on the academic achievement of students from a minority and lower-SES background, this new ERLA project focused on well-being-related outcomes: Students' motivation for learning, engagement, well-being, social initiative, and self-efficacy. These outcomes are both conditional for academic achievement and important aspects of students' development in themselves. The central research question of the project was formulated by the teachers and researchers as follows: *What are the (perceived) effects of FoI interventions on students' motivation, engagement, well-being, social initiative, and self-efficacy?*

Alignment of the FoI approaches with the school context

The new ERLA project was built on insights from the project described in the previous section (Volman & 't Gilde, 2021). As mentioned above, we found that the school context has an impact on the possibilities for implementing an FoI approach: In schools where there is room for teachers' own input in the curriculum, it turned out to be easier for teachers to implement an FoI approach than in schools where teachers are supposed to follow the textbooks strictly. In our new project, we attempted to strengthen this implementation process by making a connection between the FoI approaches and the regular teaching methods used in the participating schools. In two schools—where teachers worked with FoI for the first time—this resulted in a pre- and well-defined FoI intervention that was aligned with the regular method for geography and history in the school. During a period of six weeks, the teachers used assignments that asked the students to make identity artifacts,

which served as mediating resources that allowed teachers to align the curriculum with students' FoI. The assignments were designed in advance and described in detail in so-called "funds cards" based on the six forms of FoI that were distinguished by Esteban-Guitart (2016) and Poole and Huang (2018): Geographical, practical, cultural, social, institutional, and existential FoI. The concrete assignments related to the different forms of FoI gave teachers something to hold on to when working with FoI. At the other school, which was a school in which the teachers had already more experience with FoI, the FoI intervention consisted of a more flexible approach that was not fully developed in advance. Here, during a period of six weeks, teachers played into what happened spontaneously in the classroom. The FoI approach fitted well with the school's regular method of vocabulary teaching. Because the FoI approach was aligned with the school's regular way of teaching, the teachers experienced the intervention as a natural way of teaching and not as an extra, time-consuming task.

Further development of the way of working in ERLA

Besides the creation of new FoI interventions, we also further developed and specified our way of working in ERLA in this project. Teachers were ultimately responsible for the development and implementation of the FoI interventions in their schools, and the researchers for the evaluation research. This resulted in a collaboration form in which everyone was in their best position: Education professionals who know their educational practice and what is needed there better than anyone else, and researchers with theoretical knowledge of substantive themes and expertise in research methods. Teachers and researchers reinforced each other; researchers contributed to ideas about the design of the FoI interventions (e.g., by providing theoretical input) and teachers about suitable research methods, appropriate to their situation. So, there was a cross-pollination of each other's knowledge and experience. This has resulted in FoI interventions that are both theory-based and practically applicable and research methods that are appropriate for measuring effects in the participating schools.

Effectiveness of the FoI approaches

In the first ERLA project on FoI, researchers found no significant effects of the FoI approaches and concluded that the measurements could have been too general to capture its effects (Volman & 't Gilde, 2021). Therefore, in our new project, measurement instruments were chosen that were more closely related to the dependent variables. The researchers and teachers concluded that observations in the classroom were more appropriate than self-report questionnaires to investigate changes in student engagement. Therefore, student observations (N = 38) were conducted by a researcher. This was done before, during, and after the FoI interventions. Furthermore, with the

purpose of triangulation, teachers (N = 5) filled out questionnaires about each student's involvement, social initiative, and self-efficacy, and semi-structured interviews were conducted with teachers and students. In order to track how the intervention was enacted, also logbooks of teachers were collected.

The quantitative results from the teacher questionnaire showed significant improvement in students' engagement and social initiative during the interventions—as reported by the teachers. This positive outcome on student engagement was confirmed by the observations. Results from the observations not only showed improvement in students' engagement during intervention activities, but also during similar educational activities in which teachers did not draw on students' FoI after the intervention period. This is an important outcome because higher levels of student engagement have been found to lead to better learning performance (Finn, 1989; Finn & Rock, 1997; Newmann, 1992). The fact that in this study, with a small sample size, positive significant results were found is a strong indication that FoI interventions yield positive effects for students. In the interviews and logbooks, teachers and students also reported their enthusiasm. They perceived the positive effects of the interventions on students' engagement, motivation, school well-being, and self-efficacy. However, more research is needed on a larger scale with a comparison/control condition and longer intervention periods to provide a stronger base for drawing conclusions about the effectiveness of FoI approaches.

Despite its limitations, this ERLA project shows that FoI approaches have the potential to contribute to students' engagement and to other well-being-related variables. In addition, this study shows how concrete FoI approaches can be applied in the classroom in different contexts. Researchers and teachers developed several concrete practice products to disseminate the results, including a podcast and a practical handbook with so-called “funds cards.” These cards include concrete lesson examples which can serve as an example for other teachers and schools who want to make use of students' FoI.

Recent developments

Digital FoI

In 2021, we started with a new ERLA project, in which teachers from ten primary schools and researchers collaboratively developed, applied, and evaluated concrete digital methods and activities, with the aim to make students' FoI visible and to integrate them into their teaching (Veerman et al., in preparation). In previous FoI research, learners were asked to produce “identity artifacts:” “Documents created by the learners about themselves, in which they try to capture all the things that make sense and are meaningful to them and which, subsequently, can be used by teachers to work on curricular and pedagogical content” (Subero et al., 2018, p. 156). In the current project, teachers and students worked with digital identity artifacts. For example, students made pictures from objects, places, and activities that are

important for them in their life outside school or made a podcast about celebrations that are important in their communities. The idea for the digital FoI project originated from a study into the impact of digital (distance) education (during the lockdown in the Corona period) on the well-being of children, in which teachers not only mentioned disadvantages but also opportunities of digital education (Gaikhorst et al., in press). In particular, video calling gave them a much better insight into the home situation of children and the knowledge that students acquired there. Little research has been done on the benefits of a digital approach to FoI (Kajamaa et al., 2018; Nagle & Stooke, 2016; Poole, 2017), however, these studies were focused on secondary education and not on primary schools.

This digital project's aim is to have an impact on the broad development of primary school students. On the one hand, the project focuses on variables that are important for a successful school career (such as confidence in one's own abilities, a "growth mindset," well-being, and motivation for learning). On the other hand, the focus is on variables that affect the connection students feel with society (citizenship competences, such as dealing with and respecting differences). These variables are important, but understudied outcome variables in relation to equity (Wanders et al., 2020).

During so-called inspiration meetings, the ten teachers of the digital funds project designed, in collaboration with researchers, methods and activities that aim to make FoI visible with digital identity artifacts. The developed assignments and activities were described in so-called "digital funds cards" that were exchanged among the participating teachers and were later published for general use. The teachers worked with their students on the assignments over a period of approximately three months and tried to incorporate the FoI that had become visible in their education. An example of a funds activity that was performed in three of the ten classes is the "Weekend vlog." The teachers instructed their students to make a video vlog in which they shared weekend activities. In advance, the students were shown examples of vlogs, and as an illustration, the teachers also made a weekend vlog about their own weekend activities. The weekend vlogs of the students were viewed and discussed in class and thereafter the teachers tried to use the FoI of their students that had become visible. Another example is the "vocabulary wall," an activity specifically aimed at increasing vocabulary. Every week the teacher shared a new "word of the week," a word to be learned with an abstract meaning, for example, "tradition," "routine," or "maintenance." Students were asked to make a picture in their home environment to show what the meaning of this word means in their own life. The pictures were printed, discussed in the classroom, and placed on the vocabulary wall in the classroom.

To evaluate the benefits and limitations of the FoI interventions, interviews and focus groups were conducted with the participating teachers; students completed a questionnaire and were interviewed. Analyses of student data are still being carried out. Most teachers indicated that the digital activities provided a good picture of the FoI of their students. This was also the case with

students who normally assert themselves less in class. For some students, the digital resources proved to be an excellent way to express themselves. One of the teachers declared: “I think the most valuable thing about the vlog was that invisible children became visible in the classroom.”

In addition, the teachers mentioned several benefits of the FoI interventions, for example, an increase in well-being. One of the teachers declared: “I think the well-being of children has increased since we work this way, that they all just feel seen.”

They indicated that students and the teacher got to know each other better, which led to more understanding and improved relationships. A number of teachers noticed an improvement in the class climate. In their classes, the students became more interested in each other and listened better to each other. One of the teachers declared:

Yes, there has been a more positive atmosphere in the classroom with those vlogs and those photos. It just makes for really happy moment several times a week, so I do think that—yes, that is—I think the well-being has gotten a bit higher for kids since we’re all doing this, that they’re just all feel seen.

In individual cases, some teachers also noticed improvements in self-efficacy and the development of a growth mindset. No improvement in overall motivation was noted, but teachers did report that they found students engaged and enthusiastic during the fund’s activities in the classroom. In several cases, an improvement in citizenship competences was mentioned. Teachers said that this was mainly due to the students getting a glimpse into each other’s lives, discovering differences and similarities, and discussing them with each other. A teacher told:

Yeah, because so you—they’ve see, hey, he’s going to church, he’s doing this, he’s eating this. And you just do that—they’re very much aware that it’s different in everyone’s home. So I think [...] that’s really good, that they get a peek into other people’s houses and stuff and realize that things don’t always work out like yours.

Teachers were also able to identify a number of learning outcomes from the FoI interventions. In several cases, learners developed their presentation skills, language skills, and vocabulary. For example, one of the teachers told about the “vocabulary wall” activity:

And that vocabulary assignment is just that that meaning of words has become so clear to them. I see that—I really see the added value in that—is that finally the vocabulary really sticks, because they really make that connection now.

Unsurprisingly, the most mentioned learning outcome was an improvement in digital skills. For example, students improved themselves in word

processing, filming, film editing, sending e-mails, and sharing files. One of the teachers, who teaches at a school for newcomers, mentioned that this was especially valuable for children who have few opportunities at home to acquire digital skills. As she put it: “Some children have never had a laptop in their hands. [...] They learned [by the FoI intervention] how to send an e-mail or how to create a folder. If you’re going to be in high school soon and you’ve never seen or done that before”

Despite the positive outcomes, the teacher also encountered difficulties. Sometimes, despite efforts, it was not possible to get all students to complete the assignment. One of the reasons given for this was low parental involvement. Sometimes it was also because the students did not have access to the necessary devices (iPads or cameras). Although students at most schools were provided with devices when necessary, this was unfortunately not possible everywhere. Tragically, in some cases, this was true for students that teachers wanted to reach especially. Teachers, however, suggested various solutions to tackle this a next time, such as: Making it possible to lend resources from school (in consultation with the management), offering these students more support by the assignment, letting students work together, and informing parents immediately at the beginning of the school year about the assignments and their usefulness. One teacher, who had her students create weekend vlogs, partially solved the problem by having her students make an additional vlog with the whole class and gave (without emphasizing this) the students in question a special task that suited their interests, such as showing a talent in the vlog (dancing, keep the ball up), edit the video, or provide the subtitles for the video.

Another difficulty arose when all students did complete the assignment. Sometimes differences in capital were magnified by the assignment. For example, in one class, one of the students showed in her weekend vlog how she went to the museum and had lunch with her family in a café, whereas another student showed how she spent her weekend hanging around at the play garden and in the supermarket while her parents were not at home because they had to work. Although teachers told that these last kinds of vlogs were often equally appreciated by the other children in the class (for example, because the student in question had applied cool special effects), a pitfall in cases like this can be to start thinking in deficits, while a funds approach is all about valuing what a learner gains in terms of knowledge and skills outside of schools. It is up to the teacher to keep looking for the valuable knowledge and skills that every learner has. One of the teachers told that she used cases like this to teach the students (in an implicit way) that there are differences and that there is no right or wrong in them.

The development of an FoI questionnaire

Another recent development in our research on FoI is the development of questionnaire that allows us to investigate relationships between drawing on

student's FoI in the classroom and various relevant student outcomes in the context of educational equity and social justice (such as student motivation, engagement, and well-being). We provide lectures on FoI in the Academic Primary Teacher Education Program at our university; we could administer our newly self-developed questionnaire about FoI via student teachers in their internship schools.

We developed both a questionnaire for teachers (TQ) and for students (SQ). The questionnaires were based on the six subscales based on the forms of FoI that were distinguished by Esteban-Guitart (2016) and Poole and Huang (2018): Geographical, practical, cultural, social, institutional, and existential funds. We decided to combine the institutional and cultural funds into one scale in the questionnaire (cultural funds) because these two categories were difficult to distinguish for teachers. Furthermore, we made a separate scale for language funds, because this category had proven to be clearly recognizable and distinguishable for teachers and students in practice. We formulated items for each of the different subscales. We asked teachers and students to indicate on a five-point scale (with 1 referring to strongly disagree and 5 to strongly agree) to what extent there is attention in their classroom for the different forms of FoI. An example of an item related to geographical funds from the TQ is: "I invite children to tell something about their country of birth or those of their parents/caregivers." An example for existential funds is: "I encourage students to share experiences that are important to them." An example item from the SQ regarding cultural funds is: "In our classroom, I can show what I have learned about my own culture." An example related to practical funds is: "In our classroom, children can show what they learn outside of school (e.g., a sport or dance)."

The student and teacher questionnaires were administered in April 2022 and filled out by 533 students and 31 teachers from 24 primary schools in Amsterdam. The reliability analyses showed that the subscales for the different forms of FoI in both the teacher and students questionnaires were sufficiently reliable; Cronbach's alpha lies between 0.7 and 0.9. Furthermore, preliminary analyses showed that teachers and students reported exactly the same order in the attention for the different forms of FoI in the classroom. According to both teachers and their students, most attention is paid in the primary school classroom to 1) existential funds (mean score TQ = 4.33; SQ = 3.54), followed by 2) practical funds (mean score TQ = 3.89; SQ = 3.28), 3) cultural funds (mean score TQ = 3.75; SQ = 3.26), 4) social funds (mean score TQ = 3.62; SQ = 3.09), 5) geographical funds (mean score TQ = 3.58; SQ = 2.58), and finally, 6) language funds (mean score TQ = 2.6; SQ = 2.4). Thus, most attention is paid to existential funds and the least to language funds. Paired sample t-tests showed that this difference appeared to be significant (TQ: $t(29) = 9.795$, $p < .001$; SQ: $t(507) = 21.608$, $p < .001$).

As a next step, our questionnaire can be used to investigate relationships between addressing FoI in the classroom and various outcome variables that are relevant in the context of educational equity or social justice. For instance,

scales for measuring student motivation, well-being, and self-efficacy can be added to the questionnaire and related to the different forms of FoI. Furthermore, including questions on students' background characteristics in the questionnaire, such as country of birth and/or home language—can enable us to investigate whether relationships are different for certain groups of students. So, our project has resulted in an instrument that can be used to map how teachers address different forms of FoI in their classrooms according to students and themselves, which can be related to a variety of relevant student background characteristics and outcome variables.

Discussion

Summary

Since 2017, teachers and researchers in Amsterdam collaborate to get a better understanding of FoK/I pedagogies and to develop concrete approaches and materials that support FoK/I teacher practices. In this chapter, we described what these projects yielded in terms of knowledge and practices and how this has contributed to the development of FoK/I scholarship and the implementation of FoK/I pedagogies in primary schools. The research showed that FoI approaches have the potential to contribute to several well-being-related variables, such as student engagement and self-efficacy (Veerman et al., 2023; Veerman et al., in preparation; Volman & 't Gilde, 2021). The results of the projects also showed that FoI approaches can lead to developing a more open mind because they confront students with aspects of each other's life that were previously unknown (Veerman et al., in preparation; Volman & 't Gilde, 2021).

Reflecting on our research, we notice several developments. First, our focus has shifted from the concept of FoK to FoI. The concept of FoI turned out to be better applicable for teachers, as the associated techniques and teaching strategies can be used in the classroom and do not necessarily require teachers to make home visits. Also, it can more easily be used to play into students' interests, since FoI is about the knowledge, skills, and experiences that students themselves find meaningful.

Second, in our projects, the focus shifted from a general to a more differentiated approach, increasingly taking into account the specific characteristics of a school. What works in one context may not work in another. In schools that work in a learner-centered way, we used a more open approach; for schools with a textbook-driven curriculum, we developed concrete FoI assignments that teachers can easily fit into their program.

Third, throughout the years, we developed and tested various measuring instruments to capture the effects of FoI/K pedagogies in a qualitative and quantitative way. We started with student questionnaires that asked for general attitudes, feelings, and perceptions related to well-being and school engagement. With these instruments, we were unable to find significant effects of the FoI/K interventions. Nevertheless, positive outcomes of the FoI/K approaches

were constantly reported in interviews with teachers and students. Therefore, we continued to seek more specific quantitative measuring instruments. More recently, we conducted classroom observations that indeed yielded significant effects. Finally, we developed two questionnaires that assess the attention paid to FoI by the teacher, according to students and according to the teacher. We intend to use these to investigate relationships between drawing on students' FoI in the classroom and various relevant student outcomes. These questionnaires include scales that are based on the categories of FoI that Esteban-Guitart (2016) and Poole and Huang (2018) have distinguished: Geographical, practical, cultural, social, institutional, and existential funds. We added "language" as a separate scale; although children's home languages are a kind of cultural knowledge, they stand out as a fund, since allowing children to use their home language in school opens the door to other FoK/I.

Fourth, we recently enriched our analogical approach with a digital approach, making use of digital identity artifacts to find and build on students' FoI. Digital media appear to provide teachers a good insight into students' FoI, particularly of students who normally assert themselves less in class. Digital media gave teachers and classmates (often literally) a glimpse into each other's lives.

The insights we have gained are shared with a wider audience through presentations at conferences and in a podcast. We also bundled guidelines and tools in booklets and published so-called "funds cards," cards with concrete lesson examples which can serve as an example for teachers and schools who want to make use of students' FoI. For teachers who are less experienced in working with FoI, the cards can provide guidance and can make working with FoI of students easy to access. Teachers who are more experienced in working with FoI, often develop an attitude of being open to student input. Making FoI of their students visible and using them in their education become part of their daily teaching practice and happen in a more spontaneous way.

Challenges

During our projects, several challenges occurred. For instance, we experienced challenges in how to support teachers who want to apply FoK pedagogies in schools that more or less strictly adhere to textbooks. These teachers often experience little room in the curriculum to pay attention to FoK/I. However, despite the fact that individual teachers cannot always exert influence on the curriculum, it still proved possible to work with FoK/I approaches in their classroom. To realize this, it is important to develop FoK/I approaches that can easily be integrated into the existing teaching methods of the schools, such as our "funds cards."

However, this solution comes with another challenge: How to avoid a superficial interpretation of what it means to apply FoK/I pedagogies in the classroom. A focus on FoK/I can easily be understood by teachers as applying techniques to address the talents of individual students or to invite students to share the most obvious aspects of their home culture (food, music, and

celebrations). The most appealing and practicable teaching strategies for teachers may overlook the deeper, anti-deficit character of the FoK/I approach and even reinforce a superficial understanding of students and their families' practices (Esteban-Guitart, 2021).

A specific challenge with the digital approach is that it can highlight differences in students' economic, social, and cultural capital. It is important that teachers are prepared for this and that they make sure that every student can participate in the assignments properly and is not hindered by limited access to digital devices or parents who cannot help them. This means that students may have to be provided with equipment from the school or must be given extra support.

The social justice character of FoK/I pedagogies

Our work in the Educational Research Lab is based on a social justice perspective in the sense that it embraces a multidimensional/positive view of diversity and is context conscious and anti-deficit. As such, it also adds a different dimension to the current discourse on equal opportunities, which mainly emphasizes that students with equal talents should be able to achieve equal school performance regardless of their origin. This emphasis on school performance—more specifically, good test scores on basic skills—tends to overlook what students know and can do beyond these skills and may communicate to students that what they learn outside school is not relevant. Striving for social justice, however, also includes appreciation and recognition of the experiences, knowledge, and skills of minoritized students. Showing students that their experiences and the knowledge and skills they have acquired outside school are worthwhile is affirming and promotes agency. That is particularly important and empowering for students who tend to be underestimated and marginalized. In our ERLA projects, we clearly saw such empowering effects, although they are difficult to “prove” with quantitative measures.

However, we think that the social justice claims of the FoK/I perspective even go further than this affirming effect for individual students. An FoK/I actually implies a critique of common teaching practices that do *not* build on the strengths of students and on a curriculum that does *not* include the perspectives of marginalized groups and is *not* meaningful for them. That is why we emphasize that working with students' FoI is not just a teaching method or a technique; it involves a critical consciousness and, for some teachers, a fundamental change of attitude towards students, teaching, and the curriculum. Even though we developed “funds cards” and practical books with concrete activities that teachers can apply in their classrooms, it is not the intention that teachers carry out these activities blindly. These tools can be a starting point for a critical view of the curriculum when they are used to raise fundamental questions about who determines what is relevant knowledge and what is not. In a similar way, teachers who look at their students through an

FoK/I lens may come to see how the disengagement of some students is not a matter of individual failure but a result of a system that fails them, and that in addition to individual teachers working with FoK/I in their classrooms, change and action are also needed at an institutional level.

Future research

Although we are gaining insight into the effects of FoK/I pedagogies, we have not been able yet to determine whether FoK/I approaches have different effects for children from different backgrounds (e.g., home language, SES). This could be investigated in future studies that are either larger in scale (so that differences between groups of students can be analyzed) or small-scale in-depth studies in which selected students are observed, for example, students who seem disengaged.

Furthermore, in our projects, making FoK/I visible in the classroom proved to be easier for teachers than actually using them in the classroom. In follow-up studies, examples of good teaching practices that build on students' FoI could be collected, analyzed, and made available for other teachers. There is also a need for materials about FoK/I for teacher education and professional development. Future research could focus on developing and evaluating teacher education modules and professional development courses, based on theory and examples of good practice, in which teachers learn to connect the curriculum to students' FoI/K.

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