

Chapter 2

Curriculum Reform in Brazil to Develop Skills for the Twenty-First Century



Claudia Costin and Teresa Pontual

Abstract This chapter describes a national curricular reform process underway in Brazil. A civil society movement led by education NGOs has had a major role in ensuring the continuity of this reform through political turmoil from 2013 on. The complete *Base Nacional Comum Curricular (BNCC)* covering all of Basic Education from early childhood through upper secondary education was approved by the federal government in December 2018. The 600-page document lists the learning objectives, skills and competencies all students in Brazil must achieve. The most ambitious part of the BNCC, however, are the ten general competencies that set the north for all the grades and subject matter specific objectives, skills and competencies. These competencies are firmly aligned with the twenty-first Century skills all students must develop to lead fulfilling and productive lives as global citizens. The theory of change behind the BNCC is to align the main education policies in Brazil's highly decentralized education system to these higher standards: local curricula (state and city levels), classroom materials, student evaluations as well as initial and ongoing teacher training; thereby improving student outcomes. This chapter chronicles this reform effort and gives an overview of where this theory of change currently stands.

2.1 Introduction

Brazil is currently implementing an ambitious national curricular reform. The process began in 2013 with an organized civil society movement that realized the importance of realizing the promise of a national common core which was first laid out in the 1988 Constitution which reestablished Brazil's democratic regime. In December 2017 came the first important milestone when the Minister of Education sanctioned the *Base Nacional Comum Curricular (BNCC)* – an extensive set of learning objectives, competencies and skills – for early childhood, primary and

C. Costin (✉) · T. Pontual

Center for Excellence and Innovation in Education Policies (CEIPE) at Fundação Getúlio Vargas (FGV), Rio de Janeiro, RJ, Brazil

e-mail: claudia.costin@fgv.br; teresa.pontual@fgv.br

© The Author(s) 2020

F. M. Reimers (ed.), *Audacious Education Purposes*,
https://doi.org/10.1007/978-3-030-41882-3_2

lower secondary education. A year later the full version, a 600-page document including upper secondary education was sanctioned by the fourth Minister of Education to take office since the BNCC's first version was made public in 2015. The civil society movement started with key actors from the third sector, universities and government, who strongly believed that without a common curricular north to guide all other education policies, such as local curricula, classroom materials, teacher training and student evaluations, Brazil would never overcome its poor educational outcomes and offer its children the chance to break the cycle of poverty through education. This movement, known as *Movimento pela Base*, successfully influenced the federal government to develop the BNCC in a very short period and under the directive of several different education ministers from opposing political parties and ideologies. A third and ideologically distinct political party came to power at the beginning of 2019 with the challenge of leading the implementation of the BNCC at the school level in all 26 states, the federal district and 5570 municipalities. Time will tell how the current president's strong military, religious and conservative influences will affect the BNCC's implementation. His first Minister of Education, was fired after just 3 months. The current Minister, the sixth to command the Ministry since 2015, is an economics professor from the president's inner circle. The Ministry's focus seems to be in early literacy and increasing the number basic education schools run by the military, however they have not abandoned the BNCC implementation strategy started by the previous government.

This chapter will cover the period from 2013 to 2019, through the BNCC's writing process, the final approval of the early childhood, primary, lower and upper secondary education parts of the BNCC, the measures taken by the federal government to aide states and cities in the implementation process, as well as the role of the third sector in each of these moments.

This chapter brings the perspectives of two members of the civil society movement, *Movimento pela Base*, Claudia Costin and Teresa Pontual, who are, respectively, the Director and Executive Manager of the think-and-do-tank Center for Excellence and Innovation in Education Policies (CEIPE) at the *Fundação Getulio Vargas* (FGV), a renowned private university in Brazil. Ms. Pontual was also the Director of Curriculum at the Ministry of Education from September 2016 to August 2017, during which period the Ministry was working on the third version of the BNCC. Our account is based on our experiences as advocates of the BNCC, as well as education policy experts, who have previously held leadership roles at the state and city levels (more information on our backgrounds can be found at the end beginning of the book).

The theory of change behind the BNCC is that the alignment of all other education policies, such as local curricula, teacher training, classroom materials and student evaluations, will promote greater integration, synergies and exchanges among cities and states and lead to better outcomes for children. With a common and clearly defined north provided by the BNCC, states would develop their curricula in partnership with their own cities, the federal government's National Textbook Program (PNLD) would provide textbooks aligned with the BNCC, teacher training programs would have to incorporate the BNCC into their curricula and the Ministry

of Education would align its national external evaluation of student achievement to the skills and competencies laid out by the BNCC. In this chapter we will look at how this theory of change stands as of 2019.

2.2 Context

Brazil has participated in the Programme for International Student Assessment (PISA) since its first application in 2000. Although the country showed great improvement in mathematics from 2003 to 2012 (OECD 2012), it has stagnated since then and has always been among the worst performers. Brazil ranked 64th in mathematics, 62nd in science and 61st in reading among 69 participating countries and economies in the 2015 edition of PISA (OECD, 2015). This is despite being the world's ninth largest economy (IMF 2018) and spending more on education as a percentage of GDP than the OECD members on average (6.2% and 5.2%, respectively, in 2015) (World Bank Data 2015). According to Brazil's own assessment, the Basic Education Evaluation System (SAEB), in 2015, only 43% of students learned what they should have in Math and 55% in Portuguese at the end of fifth grade (Todos pela Educação 2018). These percentages only get worse at the higher stages: 18% in Math and 34% in Portuguese in ninth grade and seven percent in Math and 28% in Portuguese at the last year of high school, when many students have already given up on formal education altogether (Ibid). In 2017, only 59.2% of 19-year-olds had graduated high school (Ibid).

One of the greatest challenges and most commonly cited excuses for poor student performance in Brazil is the country's size. Brazil has the fifth largest population in the world (United Nations 2017), and 48.5 million children enrolled in basic education in 2018, 81% of whom attend public schools (INEP). And if the scale was not challenging enough, the country's 1988 Constitution added many layers of complexity when it distributed the responsibilities for managing the education system across the members of the federation. Brazil's 5570 municipalities are responsible for early childhood exclusively and share with states the responsibility for primary and lower secondary education. The 26 states are responsible for primary and lower secondary education (along with the municipalities) and upper secondary education (exclusively). The federal district, where the country's capital is located, is responsible for all three stages of basic education.¹ The federal government is responsible for tertiary education and should orient and help finance basic education in states, municipalities and the federal district. To add to the complexity, Brazil's 1996

¹In Brazil, basic education includes three levels: (1) early childhood which encompasses creche (zero to three years of age) and pre-school (4 and 5 year olds), (2) "fundamental" which is divided into early years which encompasses first through fifth grades (six to ten years of age) and late years which encompasses sixth through ninth grades (11–14 years of age), corresponding to primary and lower secondary education and (3) upper secondary which corresponds to the three grades of high school (15–17 years of age).

National Education Law (*Lei de Diretrizes e Bases da Educação* or LDB) grants all 181,900 schools pedagogical autonomy, while simultaneously holding city and state governments responsible for guaranteeing all students the right to quality education (Brazil 1996).

Before the 1996 National Education Law, Brazil was still overcoming the challenge of providing all children with access to primary education. Since then, Brazil has shifted to focus on ensuring all four and 5 year-olds have access to pre-school, as part of compulsory education, improving the quality of primary education, and getting students to enroll in and graduate from high school. We have made strides in all these areas, but not at the desired pace and the greatest one continues to be ensuring quality with equity: getting all students to learn what is expected for their grade level. As the country still struggles with these twentieth century challenges, the twenty-first century challenge of making education truly relevant by broadening the scope of competencies we expect schools to help children develop has added many layers of complexity to the quality challenge.

As we have fallen further behind other countries, including our Latin American neighbor Chile, and have made strides in reducing extreme poverty through conditional cash transfer programs linked to conditionalities such as school attendance, Brazil's third sector has begun looking more and more to education as the key to guaranteeing equal opportunities for all Brazilians regardless of social class, race or ethnicity. One of these, the Lemann Foundation, financed by one of Brazil's wealthiest businessman, Jorge Paulo Lemann, started operating in 2002 and dedicated most of its resources to improving public education. It was the Lemann Foundation who garnered the support of other non-profits, education leaders, university professors and politicians (from the executive and legislative branches) in Brazil to create the *Movimento pela Base*, starting with a seminal trip to Yale University in 2013, where the first members were immersed in lectures about the United States' Common Core, from its initial development to its implementation, including the successes and failures it faced along the way. The members included people associated with all sides of the political spectrum, those who had worked for the leftist Worker's Party (PT), the center-leftist Social Democratic Party (PSDB), as well as the more conservative Democratic Party (DEM) and the centrist Brazilian Democratic Movement (MDB). The members of the movement held a series of meetings to establish the premises upon which they believed Brazil should develop its own common core. The heterogenous nature of the movement made these discussions very challenging, but it is also the most probable reason for the influence and longevity it has enjoyed thus far.

As the trip to Yale University shows, the *Movimento pela Base* welcomed international experiences and expertise to inform its recommendations. National and subnational curriculum reforms that served as inspiration and lessons-learned were especially those undertaken by the United States, Australia, Chile and British Columbia in Canada, and the main institutions that shared their expertise were the UK's Curriculum Foundation, the Australian Curriculum, Assessment and Reporting Authority (ACARA), the US's Center for Curriculum Redesign and the Lemann Center for Educational Entrepreneurship and Innovation in Brazil at the University

of Stanford. These references supported the writers of the BNCC's third version in developing a competency-based curriculum starting from ten core competencies, closely aligned with twenty-first century skills, that would cut-across all the subject matter-based competencies and skills.

The idea of having national curricular guidelines is not a recent one. The 1988 Constitution determined the establishment of “minimum contents” for primary and lower secondary education (Brazil 1988). The 1996 National Education Law determines that basic education should have a “national common base”. Paulo Renato Souza, education minister during Fernando Henrique Cardoso's presidency, introduced the National Curricular Parameters (PCNs) in 1997 for primary education (which currently corresponds to second through fifth grades), in 1998 for lower secondary education (fifth through eighth grade)² and in 2000 for high school (first through third grade) covering all subject matters.³ It was a very ambitious undertaking with ten volumes produced for primary, another ten for lower secondary and 4 volumes for upper secondary. The PCNs are widely regarded as high-quality material developed by a team of respected educators. However, aside from the careful construction of the PCNs, the Federal Ministry did not go much further than ensuring the schools had physical copies of the publication. The PCNs were never published as a norm. School systems could incorporate them into their curriculum voluntarily or ignore them just as easily. However, the PCNs construction and existence laid the ground for the advent of the BNCC.

In 2010, the National Education Council approved the National Curricular Directives (or Guidelines), where once again a “national common base” is mentioned, as in the National Education Law (CNE 2010). In 2014, Brazil approved a National Education Plan for 2014–2024 (Brazil 2014). The BNCC is explicitly cited as a strategy for reaching four of the Plan's 20 goals. It goes further than the previous norms when it states that the BNCC needs to define the common learning objectives for all subject matters and each grade of primary and lower secondary education. By then, enough momentum had built to make BNCC a reality.

2.3 The Writing Process

In June 2015, the Ministry of Education began working on the BNCC's first version. At the time, Dilma Rousseff was president and Renato Janine Ribeiro, a renowned Brazilian philosopher and scholar was her education minister. The Ministry created a 116-member commission from universities, schools and specialized institutions chosen in collaboration with the State and City Secretaries of Education. The work

²At the time, primary education was 8 years long, in 2006 a law was passed altering the National Education Law to make it 9 years long, starting at 6 years of age. http://www.planalto.gov.br/ccivil_03/_Ato2004-2006/2006/Lei/L11274.htm

³The PCNs for primary and secondary education are available at the Ministry of Education's website: <http://portal.mec.gov.br/>

began with a survey of the state and city curricula to find common language and common ground for the development of the BNCC. The first version was published on September 2015. To ensure that as many teachers as possible participated in the process of developing the BNCC, the Ministry of Education placed the first version for public consultation and feedback on a dedicated online platform from September 2015 through March 2016. More than 12 million contributions were registered, half of which came from 45,000 schools. From a total of 300,000 registered users, 207,000 were teachers. At the same time, as it made the first version of the BNCC available for online contributions, the Ministry of Education hired 90 experts to analyze the document and make recommendations. The National University of Brasília (UNB) was also hired to help systematize all these contributions into recommendations for the writers to take into consideration in the second version.⁴

The BNCC's second version was published on May 3rd, 2016 already under a second Minister of Education, who left most of the staff under him unchanged. Days after the publication of the BNCC's second version, on May 12th, 2016, Dilma Rousseff stepped down as President as the Senate decided to open her impeachment proceedings under charges of having committed a fiscal responsibility crime. Her vice-president, Michel Temer took office and nominated Mendonça Filho, a politician from the Democratic Party (DEM) and former governor of the northeastern state of Pernambuco, as Education Minister. Mendonça nominated as his second-in-command a renowned educator and former Secretary of Education for the state of São Paulo, Maria Helena Guimarães de Castro with close associations to the Social Democratic Party (PSDB). This move ensured not only the continuity of the BNCC reform but increased its status. Castro was a member of the *Movimento pela Base* since the seminal trip to Yale. She immediately made BNCC her top priority and built a new governance structure for managing the reform effort, which included a management committee (instituted at the end of July) and a writing committee (MEC 2016). To help manage the writing and publication effort of the third version, the Ministry of Education brought on the Vanzolini Foundation, a private non-profit created and run by engineering professors from the University of São Paulo (USP). All matters related to the BNCC continued as planned and with a renewed sense of urgency, since there was only a little over two and a half years left in this President's mandate.

The public consultation strategy for the second version continued as planned and was targeted at the school systems in cities and states, in partnership with the National Council of State Secretaries of Education (CONSED) and its equivalent at the municipal level, the National Union of Municipal Education Secretaries (UNDIME). The National University of Brasília (UNB) continued to manage this nationwide consultation effort on behalf of the Ministry. From June to August of 2016, all 26 states and the Federal District held seminars with over 9000 participants in total, which included leaders at the system and school levels as well as

⁴The history of the BNCC can be found on the *Movimento pela Base*'s website: <http://movimento-pelabase.org.br/linha-do-tempo/>, as well as the initial website used for first and second versions of the BNCC: <http://historiadabncc.mec.gov.br/> (last access: March 2019)

teachers. These two-day workshop-style seminars produced contributions that were specific for each learning objective presented in the second version, as well as to the introductory texts, which the UNB compiled and summarized for the Ministry of Education. With their help, CONSED and UNDIME provided their recommendations regarding the BNCC's second version to the Ministry on September 2016.

The writing team immediately started working on the third version of the BNCC based on CONSED and UNDIME's recommendations. One of the biggest concerns was to ensure a sense of continuity among versions in order to maintain popular support for the reform. This was a great challenge given how unpopular Temer's government was from the point of view of most educators, who saw the impeachment as a coup d'état from conservative forces to oust a left-wing government. For this purpose, the writers produced a document where every single change made between the second and third versions of the BNCC were accounted for and justified based on the feedback received from CONSED and UNDIME.⁵ Although there were many differences between the second and third versions, the greatest one by far was the absence of upper secondary education. Whereas the two previous versions had objectives set for all levels of basic education, which in Brazil's case covers early childhood (starting at zero years of age), through primary all the way to upper secondary education (roughly 17 years of age), the third version would only cover early childhood through lower secondary education (roughly 14 years of age). That is because, in September 2016, four short months after becoming president, Temer's government passed a Provisional Measure⁶ overhauling the curricular structure of upper secondary education in Brazil and making the previous versions of the BNCC for this education level completely obsolete. Since the Provisional Measure still needed to be voted by Congress, the Education Ministry opted to treat upper secondary education separately and continue working on the BNCC for early childhood, primary and lower secondary education. This was a very controversial decision that received a lot of pushback, especially from the National Education Council (CNE),⁷ which still had members nominated by the previous government. The Provisional Measure was approved by Congress in February 2017 and the third version of the BNCC (without the upper secondary education part) was sent to the CNE for deliberation in April 2017.

Version one of the BNCC had received individual feedback through the online platform and was commissioned by the Ministry, version two had received

⁵The document can be reached at this address: http://cnebncc.mec.gov.br/docs/BNCC_Estudo_Comparativo.pdf (accessed on march 2019).

⁶*Medida Provisória*, in Portuguese, is an executive order which has the temporary force of law until it is approved by congress in at most 120 days.

⁷The National Education Council was created by law in 1995, it is composed of 24 members with 4 year mandates that can be renewed once. Two Secretaries of the Ministry of Education are innate members of the CNE. The remainder should be indicated by associations from the education sector and nominated by the Minister of Education. The members need to come from all regions of the country and all areas of the education sector. (Brasil, Presidência da República, Lei 9131 de 1995. http://www.planalto.gov.br/ccivil_03/leis/L9131.htm)

education systems' feedback through the state seminars. At this point, under the leadership of the National Education Council (CNE), version three would receive feedback from entities, such as unions, associations, universities, NGOs and interest groups, through public hearings led by the CNE with the Ministry of Education's resources and political support in each of Brazil's five regions. The hearings took place from June through September 2017, with 1707 participants, of which 283 voiced their positions regarding version three of the BNCC (CNE 2017a, b). Even though all references to gender identity had been removed from the version sent to the CNE at the behest of the government's conservative base, the public hearings were marked by criticism from religious groups against the BNCC's perceived defense of "gender ideology". Extremists from both the 'right' and the 'left' criticized the BNCC, one for not citing gender issues enough, and the other for citing them too much. To postpone the issue, the CNE Resolution that institutes the BNCC determined that the CNE will have to present norms for sexual orientation issues on a separate document. After much negotiation between the Ministry and the CNE's members, the fourth and final version of the BNCC, with changes made especially in the skills and competencies for Portuguese language, was approved with 20 votes in favor and 3 votes against it and sanctioned by the Minister of Education on December 20th, 2017. The final document was published as an attachment to the CNE Resolution, which lays out strategies and establishes deadlines for the BNCC's adoption (CNE 2017a, b). Even before the CNE's approval, in August 2017, CONSED and UNDIME (both members of the CNE) had already partnered with *Movimento pela Base* to create a BNCC implementation guide for cities and states.⁸

The complete version of the BNCC, which included the competencies and skills for upper secondary education was published a year later in December 2018. The final 600-page document has ten general competencies, which are strongly aligned with the DeSeCo project (OECD 2005), as its guiding and inspirational force. All the learning objectives set out for early childhood, the skills and competencies which are defined for Portuguese, Art, Physical Education, English Language (only for lower secondary education), Mathematics, Science, History, Geography and Religion for each grade of primary education and for the areas of Languages, Mathematics, Natural Sciences and Applied Human and Social Sciences for upper secondary education (the only subject matter that has specific competencies and skills laid out is Portuguese) are meant to culminate in the ten general competencies laid out in the introductory chapter of the document.

The early childhood learning objectives are extremely noteworthy as the concept of curriculum was not very widespread in Brazilian day care centers, which, until recently, were seen as part of social protection policy rather than educational centers. The early childhood BNCC makes clear to all education systems the need to have learning objectives in day care centers for month-old babies continuing to preschool. As the research literature has shown the importance of investing in

⁸The implementation guide can be accessed here: http://basenacionalcomum.mec.gov.br/wp-content/uploads/2018/04/guia_BNC_2018_online_v7.pdf

children's first years of development as crucial to their future success (Elango et al. 2015), the BNCC's inclusion of clear learning objectives for early childhood should promote higher quality curriculum, materials and teaching to the first stage of Basic Education.

Another important way in which the BNCC's final version sets higher expectations for Brazilian students is occurred in the skills and competencies in Portuguese language. Where previously Brazilian students were expected to learn to read and write by the end of third grade (around 8 years of age), the BNCC brought this expectation up to the end of second grade (around 7 years of age). This measure meant to place focus on the importance of achieving literacy at most by second grade in order to avoid the accumulation of learning deficits reflected in Brazil's high repetition and grade-age distortion rates.

According to the theory of change, for the BNCC to have its intended impact on the quality of education, cities and states, who are directly responsible for public schools, need to develop curricula aligned to its higher standards and from there develop classroom materials, professional development and student evaluations to ensure the new curriculum is effectively implemented. Although arriving at a BNCC that could be approved by a diverse National Education Council was a challenge, getting this written document to change what goes on in the tens of thousands of schools across Brazil is a much greater one, especially in such a decentralized education system. The Ministry of Education, as well as the *Movimento pela Base*, are currently focused on supporting cities and states' implementation efforts, including the provision of funds for such actions.

2.4 The BNCC and State and City Curricula

Cities and states have vastly different organizational and human capacities to develop and implement a high-quality curriculum. The Ministry of Education has implemented a program, the ProBNCC, with the support of the *Movimento pela Base* to help states and cities build their own curriculum by financing, training and offering technical support to a group of writers nominated by a Committee where the cities are represented. In doing so, the Ministry is guaranteeing that all states have a dedicated writing team to translate the BNCC into a state level curriculum, which might not have been the case otherwise. The ProBNCC is a collaborative effort involving CONSED, UNDIME, the National Forum of Education Councils and the National Union of State Councils of Education (MEC 2018). As of October 2019, all 26 states and the Federal District had their curricula aligned with the BNCC approved by their respective subnational level Education Councils (InfoBNCC#2 2019).

The Ministry's strategy also includes incentives for cities and states to work together on developing curricula. This is crucial to the success of the BNCC since most of Brazil's 5568 municipal departments of education lack the institutional capacity to develop their own high-quality curricula. The high number of municipal

school systems, many of which have less than five schools to manage, generate very heterogeneous conditions and results. In order to improve outcomes for children, the Ministry of Education and the third sector have begun focusing on promoting collaboration between cities and state school systems, with the latter, which usually have greater institutional capacity, taking on a leadership role. The mixed responsibilities the Constitution attributes to both cities and states when it comes to primary and lower secondary education can lead to competition for students and disarticulated policies. It also poses a challenge related to early childhood education, which is outside the states' realm of responsibility. Therefore, State Departments of Education have not built the necessary technical capacity to come to the cities' aid. Few states have been able to develop strong and lasting collaborative relationships with cities that have led to better outcomes for children.

The most renowned example of collaboration between a state and its cities comes from Ceará (Abrucio et al. 2016). A state that stands out for having the best educational outcomes in Brazil's Northeast, its poorest region, and for having the least inequity among its public primary schools when compared to the rest of the country. In Ceará close to 100% of primary and lower secondary schools are administered by the cities' departments of education. On average, in Brazil, cities are responsible for over 80% of public primary and about half of lower secondary enrolments (INEP 2018). Although, until recently, in most cases, states provide did not provide cities with much support for running its schools, in Ceará the State Department of Education dedicates an entire division to cooperation with its cities. This cooperation involves financial resources, technical assistance, classroom materials, teacher training and external student evaluations to all its 184 municipalities. Even before the BNCC, Ceará already had an early childhood and primary education curriculum developed in partnership with the cities.

States like Ceará that had previously established strong partnerships with cities are serving as references to others who understand the importance of this collaboration for improving its own outcomes. After all, improving outcomes in upper secondary education, which are exclusively the responsibility of states, is nearly impossible when children fail to learn what they should have in primary and lower secondary schools. Since states have greater financial and human resources than cities, their leadership is essential for decreasing inequalities between cities and guaranteeing equal opportunities for all residents.

Ideally, states, capitals and perhaps the largest cities would develop their own curriculum, the smaller cities would adopt their state's curriculum, and schools would contextualize these curricula through their pedagogical projects. With this level of cooperation, Brazil would have around 60 different curricula as opposed to over 5500, if all school systems decide to develop their own. The first outcome favors BNCC's theory of change, whereby alignment between education policies leads to better outcomes for children.

Besides the issue of state and city cooperation, developing a curriculum aligned with the BNCC faces a more general technical capacity challenge, which stems from the limited number of curriculum experts in the country and their concentration in Brazil's southeast region. The Ministry of Education, the Lemann Foundation,

Movimento pela Base, and *Todos pela Educação*, among others, are creating incentives, programs and partnerships to increase national research and expertise in this area.

2.5 The BNCC and Classroom Materials

Whereas schools are run by cities and states, the textbooks that teachers and students use are chosen from a pre-approved list by schools and provided directly by the federal government, with little participation from departments of education, as part of the National Textbook Program (PNLD), the Ministry of Education's longest running program. In 2017 the Ministry made some significant changes to the program, increasing the level of participation of departments of education, adding a step before the schools' choice when the Secretary of Education can decide that all or subgroups of schools will adopt the same textbook. The textbook they will receive will be democratically chosen by the teachers in the participating group of schools (Brazil 2017).

In a context where textbooks often become the tacit curriculum, influencing their production is crucial to the BNCC's theory of change. As a federal policy, the PNLD is also easily altered by the Ministry. Even before the BNCC's final version was approved by the National Education Council, the Ministry published on July 31st, 2017 a public bid for the textbooks for early childhood and primary education (first through fifth grades) in all subject matters aligned to the BNCC's third version. These textbooks would arrive in schools at the start of the 2019 school year and last for 3 years. This tight production schedule as well as the need to apply any changes made in the BNCC's final version to the textbooks used in the second year of the three-year cycle led to strong pushback from publishers. Despite these complaints, the Ministry's sense of urgency to implement the BNCC prevailed. Another innovation brought to the PNLD 2019 was the inclusion of a textbook introducing project-based learning focused on developing the BNCC's ten core competencies (FNDE 2017).

As important to the BNCC's implementation, as the PNLD is, it also imposes a clear limitation since it does not take into consideration the city and state curricula, bypassing a crucial element of the theory of change. As the PNLD has never been able to answer to regional or local curriculum needs (even before the BNCC), many states and cities (including São Paulo and Ceará) have produced their own classroom materials and sent them to schools to be used on top of or even in lieu of PNLD textbooks. This juxtaposition of efforts has come under the attack of public attorneys who only see the duplicity of public resources, not appreciating that the state and city materials serve the local curriculum and context whereas the national ones cannot fulfill this purpose.

The other limitation the PNLD poses to BNCC implementation is that it delays the arrival of BNCC-aligned textbooks to its own 3-year cycle. As it stands, the early childhood education and primary education BNCC-aligned textbooks would

arrive in schools at the start of the 2019 school year, the ones for lower secondary education would arrive at the start of 2020 and the upper secondary textbooks in 2021. Consequently, even though the local curricula might be aligned to the BNCC starting in 2020, classroom materials will only be aligned for all grades in 2021.

The BNCC reform has made evident the need for changes to the PNLD that would lead to the decentralization of more resources and pedagogical decisions to the departments of education where curriculum decisions are made. However, as the longest standing federal public education program, with an annual budget of over two billion reais (around 521 million dollars), the PNLD is one of the publishing market's main revenue sources and they have built a strong lobby to push back against any changes that might be contrary to their interests.

The BNCC's theory of change presumes that states and cities will develop their curricula in collaboration with one another and for these curricula to affect what is taught in classrooms the textbooks that teachers use to plan their lessons and students take home to study need to be aligned to these curricula, including the local context and other additions they should bring to the BNCC. When the PNLD delivers books that are aligned only to the BNCC, it fails to acknowledge all the resources that states and cities, with the federal government's support, have put into developing their own curricula and leaves cities and states with the responsibility of complementing the PNLD textbooks with additional materials that consider the specificities of their curricula, which they may not have the capacity or means to do.

2.6 The BNCC and Teacher Training

For the BNCC to have its desired impact on student outcomes, the skills and competencies it lays out need to be incorporated into the curricula of initial teacher training programs, so that all future teachers feel prepared to help develop them in their students. Temer's government took advantage of the Upper Secondary Education Reform to amend the National Education Law to mandate that the BNCC be incorporated into initial teacher training curricula within 2 years of its approval (LDB, article 62). Although this change to the law sends a strong message, the Ministry of Education has few enforcement mechanisms. Universities are still the BNCC's strongest opponents. At the public hearings held by the CNE, university representatives repeatedly voiced their disapproval, sometimes directed at conceptual differences to the BNCC's content, but also, and more alarmingly, at its very existence. Many Brazilian education scholars believe the BNCC infringes upon teachers' and schools' pedagogical autonomy and strongly oppose any version of it, especially one approved by a government who many see as illegitimate. If the University Departments of Education do not accept the BNCC, it is very unlikely they will incorporate it into their curricula.

A more effective enforcement could come from cities and states requiring the skills and competencies specified in the BNCC as part of their teacher admission exams. If the initial teacher education programs incorporate these skills and

competencies in their curricula, it will be a profound shift from the current theoretical focus. However, the issue of how to teach these skills and competencies will remain, as it goes beyond the BNCC's reach.

To address teaching quality more broadly, the Ministry of Education developed a different "common core" for teacher training programs (both initial and ongoing) and sent it to the consideration of the National Education Council at the end of 2018. The CNE approved it unanimously in November 2019. The document currently awaits final sanction and publication by the Ministry of Education.

Considering how crucial teacher quality is for student outcomes, if the BNCC fails to affect these programs its impact will be shortchanged. The professional development offered directly by departments of education will more easily incorporate their own BNCC-aligned curricula than the university-based programs, which enjoy greater autonomy and are guided by interests and incentives many steps removed from the needs and aspirations of public-school classrooms. Since higher education is under the federal government's direct responsibility, it is up to the Ministry of Education to develop and implement policies that will ensure these university-based programs better prepare its students to become excellent teachers. The third sector, in this case led by the non-profit *Todos pela Educação* (All for Education, in a literal translation), is placing great focus on building a strong knowledge-base and placing pressure on the government to reform teacher training as the main path towards improving education quality in Brazil.

2.7 The BNCC and National Student Evaluations

As a federal policy, the BNCC will only be successfully implemented if the student evaluations can demonstrate that students have developed the skills and competencies laid out in the document. The evaluations need to focus on the BNCC, not on the local curricula, and serve as a national thermometer of education quality. Brazil has a strong, technically robust and long-standing student evaluation system whose rubric has had a strong influence over city and state curricula. With the BNCC, cities and states gain more robust and detailed guidance for their curricula and the policies that follow: classroom materials, professional development, and local student evaluation systems. If these policies are well-implemented at the local level, the results should be reflected in the national evaluations, which, in contrast to the local evaluation systems, should not be curriculum-based but focus on what the BNCC determines all Brazilian students should learn. The BNCC returns the national evaluation system to its rightful place of informing whether school systems are succeeding in developing students' skills and competencies at a few crucial milestones, instead of limiting what should be taught to what is tested.

Brazil's Basic Education Evaluation System, SAEB, was created in 1990, but results are only comparable from 1995 on when INEP, the federal institute responsible for SAEB, adopted the Item Response Theory (IRT) methodology. Since then, a representative sample of public-school students' Portuguese and Math skills have

been evaluated at the end of primary education (currently fifth grade), end of lower secondary (currently ninth grade), and end of high school every 2 years. In 2005, the evaluations were extended to all students at the end of primary and lower secondary education and in 2017 all students at the end of high school were also included, generating results per school and city for each of these three stages of basic education.

Since 2007, the fifth, ninth and 12th grade results are combined with promotion rates to generate a Basic Education Development Index (Ideb) for primary, lower secondary and upper secondary education for each school, city, state and the country, with corresponding goals set until 2021 by the Ministry of Education's National Education Research Institute (Inep). The Ideb has drawn public attention to the quality of Brazil's schools and school systems every 2 years with results available from 2005 on.⁹ This schedule means the Ideb is always released on election years, when it can be featured on political campaigns and debates. Politicians, especially those seeking reelection, are keen to show improvement in their Ideb results.

The National Education Council resolution which instituted the BNCC for early childhood, primary and lower secondary education determined the national exams should incorporate its changes 1 year after publication, which corresponds to the end of 2018. The resolution that established the BNCC for high school was approved on December 17th, 2018 and gave at most 4 years for aligning the evaluations and exams for high school, such as the national college entrance exam (ENEM), to the new curricular objectives. In response to the first BNCC resolution, INEP published new evaluation rubrics for SAEB, announcing changes such as the anticipation of the literacy and numeracy exam previously administered at the end of third grade (8-year-olds) to the end of second grade (7-year-olds), and the inclusion of the social and natural sciences to the 9th grade exams (Inep 2018, p. 46).

Considering that the 2017 resolution determines BNCC-aligned curricula need to be implemented by cities and states by the start of the 2020 school year, the 2019 SAEB will likely serve as a baseline for cities and states, as opposed to an evaluation of BNCC implementation. As part of the international benchmarking done by the *Movimento pela Base* one of the lessons learned from common core implementation came from New York, where common core-aligned evaluations were implemented too soon, generating dissatisfaction among teachers and harming the reform. In order to avoid such a fate, INEP must communicate clearly what it will be evaluating in 2019 and how the corresponding Ideb results should be publicized considering the reform's implementation will still be underway. When using SAEB to evaluate BNCC implementation, it is important to keep in mind that the first cohort that will have gone through 12 years of BNCC-aligned curricula will only graduate high school in 2032.

⁹Ideb results for high schools only became available starting in 2017, when SAEB began evaluating all 12th graders, instead of a sample of them, allowing results to be calculated per city and school.

2.8 The BNCC and Twenty-First Century Skills

The most ambitious feature of the BNCC, which only appeared in the document's third version, was to establish ten core competencies that all students should develop throughout basic education, starting in early childhood. These competencies include lifelong learning, critical thinking, aesthetic sensibilities, communication skills, digital literacy, entrepreneurship, self-care, empathy, citizenship and ethics. The core competencies broaden the goals of basic education well-beyond academic skills to twenty-first century skills widely regarded as essential to preparing the next generations for the challenges of the 4th industrial revolution.

As ambitious as it was, the BNCC was criticized for the lack of explicit links between the ten core competencies and the subject specific competencies and skills, leaving cities and states with the responsibility of making these links themselves. In addition to this, the core competencies are not generally integrated into teacher training programs and are often de-prioritized for the more basic literacy and numeracy needs. In this context, the Ministry of Education and its partners in the third sector have developed orientations, produced videos and online courses aimed at filling this gap, and helped cities and states integrate the ten core competencies in their curricula.

The *Movimento pela Base* partnered with the Center for Curriculum Redesign in Boston to develop a document titled Dimensions and Development of the BNCC's Core Competencies where each of the ten core competencies is broken down into dimensions and subdimensions where the skills students should develop by different stages of basic education are specified.¹⁰ Other materials developed include a two-hour online course created by *Nova Escola* (Brazil's number one magazine for teachers) and the Lemann Foundation called the BNCC's Core Competencies and an online platform called Competencies in the BNCC (<http://www.competenciasnabncc.org.br/>) that relates the general competencies to the subject- and grade-based one. These materials are organized for easy access in the BNCC's official website (<http://basenacionalcomum.mec.gov.br/>), the *Movimento pela Base*'s website (<http://movimentopelabase.org.br/>), as well as the Core Competencies' online platform mentioned above.

This concerted effort and the richness of the material available is a testament to the relevance that twenty-first century and socioemotional skills have gained in the Brazilian education debate. One of the main bastions of this theme has been the Ayrton Senna Institute, which in May 2015 launched the eduLab21, "to disseminate scientific knowledge to open the education frontiers and prepare children and youth for life in the 21st century" in partnership with national and international institutions (<https://institutoayrtonsenna.org.br/pt-br/Atuacao/Atuacao2/edulab-21.html>, translation mine). Their website provides a vast repository of resources on how to integrate socioemotional skills in curricula and the classroom. They are also the ones

¹⁰The document is available in the *Movimento pela Base*'s website at the following address: http://movimentopelabase.org.br/wp-content/uploads/2018/03/BNCC_Competencias_Progressao.pdf

investing in ways to measure these skills and have created the SENNA, an instrument to measure socioemotional competencies, especially those associated with the big five (openness, extraversion, agreeableness, conscientiousness, neuroticism), in school systems. Another third sector institution that has become a leader in this discussion is the Inspirare Institute, through Anna Penido, a member of the *Movimento pela Base*, and strong advocate for the core competencies. She is featured in most of the videos and cited in most of the documents regarding the BNCC's core competencies. One of Inspirare's initiative is the website *Porvir* (<http://porvir.org/>), which is another great source of information, materials and references for school systems, schools and teachers interested in implementing the core competencies and socioemotional skills more broadly.

Although the third sector plays an important role in providing supporting materials, the materials that reach the classrooms and students are the ones provided by the government, mostly through the PNLD. As mentioned above, the PNLD 2019 brings a project-based textbook based on the BNCC's core competencies. Since it is the first time this kind of material will be produced, it will be interesting to see what the publishers will come up with and how this will be received by teachers from 1st through 5th grades. Unfortunately, the PNLD has never been evaluated or even monitored closely to try to understand how different materials might affect student performance. Hopefully, the third sector can help fill this gap as well.

Despite all these efforts, the extremely low learning levels presented at the outset of this chapter serve as strong deterrents from focusing on these core competencies as school systems feel great pressure to focus on the academic competencies to the exclusion of all else. Especially since Math and Portuguese are the only subjects that count toward the Ideb, the indicator that holds the most political weight. For this reason, school systems which have already surpassed their Ideb goals are usually the ones who implement reforms aimed at developing twenty-first century skills. One such example comes from Sobral, a city in the northeastern state of Ceará that boasts the highest Ideb results in Brazil and has begun implementing a program focused on developing their teachers' socioemotional skills starting in 2018.

In order to promote the core competencies, Brazil will need to integrate them in its evaluation system, SAEB, or at the very least its strongest proponents will need to demonstrate to cities and states that integrating these core competencies in their curricula and materials will improve learning outcomes in all areas, including Portuguese and Math.

Ensuring all Brazilian students master the ten core competencies laid out by the BNCC by the end of high school is a long-term, extremely ambitious goal. Before we can set a timeframe for when we will be able to achieve this feat, we need to know where we stand. Due to the core competencies' complexity, each involves several skills, attitudes and sometimes values, it is unclear whether we will be capable of measuring all ten of them and by when. Until then we are in the company of the OECD, which is already tackling this challenge and will likely pave the way for Brazil in this respect.

References

- Abrucio, F. L., Seggatto, C. I., & Pereira, M. C. G. (2016). Regime de Colaboração no Ceará: Funcionamento, Causas Do Sucesso e Alternativas de Disseminação do Modelo <http://www.institutonatura.org.br/wp-content/uploads/2016/12/Relatorio-Ceara-AF-Web.pdf>. Accessed 30 Nov 2019
- Brazil. (1988). *Presidência da República, Constituição da República Federativa do Brasil de 1988*. http://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm. Accessed Mar 2019.
- Brazil. (1996). *Presidência da República, Lei de Diretrizes e Bases*, Bill 9394/1996. http://www.planalto.gov.br/ccivil_03/LEIS/L9394.htm. Accessed Mar 2019.
- Brazil. (2014). *Presidência da República, Plano Nacional de Educação*, Bill 13005/2014. http://www.planalto.gov.br/ccivil_03/_Ato2011-2014/2014/Lei/L13005.htm. Accessed Mar 2019.
- Brazil. (2017, July 18). Presidência da República, Decree 9.099. http://www.planalto.gov.br/ccivil_03/_ato2015-2018/2017/decreto/D9099.htm. Accessed Mar 2019.
- CNE Conselho Nacional de Educação. (2010). *Resolução 4 de 2010*, http://portal.mec.gov.br/dmdocuments/rceb004_10.pdf. Accessed Mar 2019.
- CNE National Education Council. (2017a). Decision 15 of 2017 on the matter of the BNCC. <http://portal.mec.gov.br/docman/dezembro-2017-pdf/78631-pcp015-17-pdf/file>. Accessed Mar 2019.
- CNE National Education Council. (2017b). *Resolução 2 de 2017*. http://basenacionalcomum.mec.gov.br/wp-content/uploads/2018/04/RESOLUCAOCNE_CP222DEDEZEMBRODE2017.pdf. Accessed Mar 2019.
- Elango, S., Garcia J. L., Heckman, J., & Hojman, A. (2015). Early childhood education. <https://heckmanequation.org/www/assets/2017/01/FINALMoffitt-ECE-Paper2015.pdf>. Accessed Mar 2019.
- FNDE. (2017). Public Bid 01/2017 for 2019 PNLD textbooks. <https://www.fnde.gov.br/programas/programas-do-livro/consultas/editais-programas-livro/item/10521-pnld-2019>. Accessed 30 Nov 2019.
- INEP. (2018). *Resumo Técnico: Censo da Educação Básica 2018* [recurso eletrônico]. http://download.inep.gov.br/educacao_basica/censo_escolar/resumos_tecnicos/resumo_tecnico_censo_educacao_basica_2018.pdf. Accessed Mar 2019.
- InfoBNCC #2. (2019, October). http://movimentopelabase.org.br/wp-content/uploads/2019/10/infobncc2_out2019_final.pdf. Accessed Dec 2019.
- MEC. (2016). *Portaria MEC 790, July 27th 2016*. http://portal.mec.gov.br/index.php?option=com_docman&view=download&alias=46471-link-port-790-base-curricular-pdf&category_slug=julho-2016-pdf&Itemid=30192. Accessed Mar 2019.
- MEC. (2018). Paraná aprova primeiro currículo em consonância com a BNCC. <http://portal.mec.gov.br/ultimas-noticias/222-537011943/71361-parana-aprova-primeiro-curriculo-em-consonancia-com-a-bncc>. Accessed 30 Nov 2019.
- OECD. (2005). The definition and selection of key competencies: executive summary. <https://www.oecd.org/pisa/35070367.pdf>. Accessed Mar 2019.
- OECD, PISA. (2012). Results in focus: What 15-year-olds know and what they can do with what they know, p. 8. <http://www.oecd.org/pisa/keyfindings/pisa-2012-results-overview.pdf>. Accessed Mar 2019.
- Todos Pela Educação. (2018). Educação Já, 21–24. https://www.todospelaeducacao.org.br/uploads/_posts/58.pdf. Accessed 20 Mar 2019.
- United Nations, Department of Economic and Social Affairs, Population Division. (2017). World population prospects: The 2017 revision. https://population.un.org/wpp/Publications/Files/WPP2017_Wallchart.pdf. Accessed 30 Nov 2019.

- World Bank Data. (2015). <https://data.worldbank.org/indicator/SE.XPD.TOTL.GD.ZS?locations=BR-OE>. Accessed 20 Mar 2019.
- World Economic Outlook Database, International Monetary Fund, October. (2018). World economic outlook database. <https://www.imf.org/external/pubs/ft/weo/2018/02/weodata/index.aspx>. Accessed 20 Mar 2019.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

