

Adequacy in the South African context: A concept analysis

CHRISTINA AMSTERDAM

Abstract

Adequacy as a concept or philosophy has recently emerged as part of school finance literature and policy in South Africa. Broadly defined as sufficient input levels to ensure student achievement of learning goals, adequacy has roots in school finance litigation in the United States of America. A review of school finance literature shows different conceptions of adequacy; as an input measure, an educational outcome measure, and a legal theory. The realisation that equity was not easily attainable, led plaintiffs in North American states to embrace and pursue adequacy as an alternative to, or step in the direction of attaining equity. The evolution of the school funding debate from equity to adequacy in the United States has relevance to the South African context, with obvious limitations. This article explores the promises and limits of adequacy in the South African context.

Adequacy as a school funding principle is a novel concept in South Africa. Prior to 2003 the school finance debate or literature was firmly centred on equity. Recently scholars of school finance in South Africa started raising adequacy as a funding principle that merits closer investigation (Fiske & Ladd, 2004; Wildeman, 2004; Motala, 2005; Reschovsky, 2006). Defined as sufficient input levels to ensure student achievement of learning goals, this concept was propelled to the top of the school finance agenda in the United States of America (USA) by the 1989 Kentucky Supreme Court decision that the state education system was unconstitutional and failed to provide its students with an adequate education. In the decade following this decision, courts in several other states followed suit and declared their education finance systems "constitutionally inadequate" (Minorini & Sugarman, 1999, 195). The court ordered state legislatures to define an adequate education, determine the costs and fund it.

The decision of the Kentucky Supreme Court was a departure from the norm in school finance litigation; until then, courts based their rulings on equity considerations, i.e. interdistrict spending inequalities. Equity, commonly defined as "fairness," has its roots in the struggle for racial equality in education in the United States. In *Brown v. Board of Education* (1954), plaintiffs challenged the "separate but equal" standard established by *Plessey v. Ferguson*, 163 U.S. 537 (1896) by arguing that the education blacks received was inferior to that received by whites (Minorini & Sugarman, 1999). The United States of America (USA) Supreme Court ruled that segregated public schools were unequal and thus unlawful. The Civil Rights Act of 1964 served as a catalyst for compliance with the 1954 landmark ruling in *Brown v. Board of Education* (Minorini & Sugarman, 1999).

The success of the plaintiffs in *Brown v. Board of Education* prompted individuals and school districts to bring school finance cases argued on the Equal Protection Clause of the US constitution before the US Supreme Court. Initially, plaintiffs contended that "the Equal Protection Clause gives each school district within a state the right to equal funds" (Fogle, 2000). Rejection of this theory by federal court moved plaintiffs to argue that state finance systems that allowed the quality of education to vary among school districts based on local wealth, denied children in poor districts equal protection. Thus the legal argument advanced by plaintiffs in federal court shifted from discrimination based on race to discrimination based on wealth.

Federal involvement in school finance litigation came to an end with the US Supreme Court decision in *San Antonio School District v. Rodriguez* in 1973 that interdistrict spending inequalities were not discrimination against poor students (Minorini & Sugarman, 1999; Fogle, 2000). As a result, school districts, parents and interest groups shifted the struggle for equitable funding to the state courts. They used the equal protection and the education clause in state constitutions to argue that education was a fundamental right and should be equally distributed (McUsic, 1991; Minorini & Sugarman, 1999; Fogle, 2000). Although some of these cases were successfully litigated, the list of defeats was longer.

During the 1980s a shift in the terms of the school funding debate occurred. Minorini and Sugarman (1999) explain:

In the courts, that shift has been away from traditional 'fiscal equity' cases (concerned with inequalities in school district per-pupil property tax bases and the per-pupil spending inequalities they yield), toward arguments focused on ensuring that all students have access to educational resources and opportunities adequate to achieve desired educational outcomes (175-176).

The shift from equity to adequacy can be explained by a consensus among researchers in the US and Canada that equity is not easily attainable. In the United States researchers declared as early as 1975 that "equity in educational financing has not been achieved" (McGrath, 1993, 4). McGrath also noted that educational equity in Canada has been watered down or put on the back burner "because of competition from other sources" (4). Assessments of South Africa's progress towards equity in education led to similar concerns (Fiske & Ladd, 2004; Motala, 2005).

The USA and South Africa travelled similar paths in the quest for equity in education. Both have a history of racial segregation and inequality in education and in both contexts equity emerged as a dominant principle in the allocation of resources after major political changes. South Africa, however,

is starting from a much greater level of inequality, starting from a situation where the poor and disadvantaged are the majority rather than the minority, where there is a simultaneous modernisation and quality agenda at the same time as an equity and justice agenda (Crouch, 2003).

During the post-1994 period in South Africa much emphasis was placed on equity and redress as education-funding principles. Contextually, these principles were important because the apartheid governments based school resource distribution on a racial hierarchy. In 1993 the annual education expenditure for learners in the four racial categories was; R951 per White learner, R899 per Indian learner, R765 per Coloured learner, R328 per non-Homeland African learner, and R311 per Homeland African learner¹ (Castro-Leal, 1996). Over time inequitable funding of schools resulted in severe resource inadequacies in schools serving African learners. The first democratically elected government sent a clear message of departure from apartheid policies by adopting legislation based on constitutional principles such as equity, redress and non-racialism. In this regard, Section 34 of the South African Schools Act (SASA) of 1996 states that it is the responsibility of the state to "fund public schools from public revenue on an equitable basis in order to ensure the proper exercise of the rights of learners to education and the redress of past inequalities in education provision".

¹ Prior to 1994 the South African government employed a racial classification system, using the categories African, Coloured, Indian and White. Castro-Leal makes a distinction between learners attending schools in former Homelands and those in other parts of South Africa.

Recent publications on school funding in South Africa reported progress in reducing interprovincial differences in public school spending levels and equalising learner:educator ratios (Fiske & Ladd, 2004; Reschovsky, 2004; Motala, 2005). However, vast inequalities still exist among schools, specifically in terms of infrastructural backlogs (School Register of Needs, 2000). When these backlogs combine with limited education funding from the South African government and a range of school fees, the equity picture looks bleak. If all South African schools are placed on an adequacy continuum, schools will fail on various points based on past levels of privilege (e.g. urban, middle class, former white schools) or neglect (e.g., rural, poor, black schools).

The purpose of this article is twofold: (1) to critically review the concept of adequacy as a school funding standard in the United States (US) and (2) explore relevance of the concept to school funding in the South African context. First, the article will focus on the different conceptions of adequacy as well as the evolution of the concept over time. An analysis of the dominant approaches to measuring adequacy will be followed by a discussion of the promises and challenges of implementing an adequacy model.

Second, the relevance of adequacy to education funding in South Africa will be explored. This second part of the article will focus on efforts to introduce the concept of educational adequacy in the South African context, the challenges associated with implementation and the potential gains of this approach.

The concept of adequacy in the United States of America (USA) How is adequacy defined?

Researchers readily admit that concepts such as equity and adequacy are difficult to define and measure (Augenblick, Myers & Anderson, 1997; Fiske & Ladd, 2002). As a concept, adequacy "is still emerging and evolving: there is as yet no consensus on its meaning and only limited understanding about how and what would be required to achieve it" (Ladd & Hansen, 1999, 101).

Scholars of school finance define adequacy as sufficient resources to ensure student performance at predetermined levels (Clune, 1994; Hadderman, 1999; Picus, 2000; Guthrie & Rothstein, 2001). A review of the literature revealed several dimensions of the adequacy concept; for example, a distinction can be made between the adequacy of education funding levels (inputs) and the adequacy of education (outcomes). Adequacy is also advanced as a legal theory or requirement (Minorini & Sugarman, 1999). Describing adequacy as "the ideal state of vertical equity," King *et al.* (2005, 3) contend that it is part of a larger equity goal or a form of equity.

The majority of researchers in the field of school funding define adequacy as an input or a level of input to ensure that students achieve specified standards (Clune, 1994; Hadderman, 1999; Picus, 2000; Guthrie & Rothstein, 2001). Typically, input is expressed in monetary terms. However, quality indicators such as facilities, textbooks, equipment, the curriculum and the quality of teachers are also considered inputs. Proponents of adequacy link educational inputs with outputs in theory. They do not offer strategies to realise the outcomes once sufficient resources have been allocated or obtained.

In the school finance literature, adequacy as an outcome measure is expressed in terms of student achievement of predetermined performance levels. Student performance levels are set for statewide student assessment systems, which in turn form part of school accountability systems adopted in the 50 states of the US (National Conference of State Legislatures, 2002). Adequacy advocates and plaintiffs argue that such legislative demands for desired educational

outcomes should be accompanied by sufficient funding. Thus, adequacy is utilised as a legal theory.

Like equity, adequacy took shape in the courts of the United States of America. School districts and individuals challenge(d) the constitutionality of school funding plans in cases where funding did not match accountability demands. "Challenges to the legality of states' school finance plans contend that all students must have access to equal, efficient and adequate educational opportunities" (King *et al.*, 2005, 3). The Kentucky case paved the way for plaintiffs in states such as New Hampshire, Tennessee, and North Carolina to change the argument on which they built their school finance lawsuits – from equity to adequacy (Minorini & Sugarman, 1999).

Several researchers use the *Rose v Council for Better Education* court case of 1989 in which the Kentucky public school system was found to be unconstitutional, as the watershed adequacy case. The plaintiffs argued that the Kentucky legislature did not comply with the constitutional mandate of providing an efficient education. School finance systems were overturned in several states and state legislatures ordered to determine the costs of an adequate education, fund, and implement it. (Minorini & Sugarman, 1999; King *et al.*, 2005). School funding plans were upheld in states where constituents were more tolerant of disparities in the provision of educational resources or where state base level funding was found to be sufficient for the provision of a basic education.

Evolution of adequacy as a concept

Adequacy has evolved from a focus on attainment of minimum educational standards to specification of an education that will enable students to be productive citizens in the 21st century. Verstegen and Whitney (1997) conclude that, "the fundamental shift to a global economy and knowledge society has provided sufficient cause to vacate earlier notions of minimal adequacy" (330). As early as 1993 the New Hampshire Supreme Court declared:

A constitutionally adequate public education is not a static concept removed from the demands of an evolving world ... Mere compliance in the basics – reading, writing, and arithmetic – is insufficient in the waning days of the twentieth century to ensure that this State's public school students are fully integrated in the world around them. A broad exposure to the social, economic, scientific, technological, and political realities of today's society is essential for our students to compete, contribute, and flourish in the twenty-first century.

Courts increasingly argue that sufficient is not good enough and that some education clauses may be outdated. Thus, in addition to interpreting the education clause in state constitutions, courts consider relevant variables such as facilities and teacher quality in the plaintiff districts.

Approaches to determining the cost of an adequate education

Education finance researchers use two major approaches, the Resource Cost Model (RCM) and the Empirical Approach in calculating the cost of an adequate education. The RCM was developed in the early 1980s and expanded during the 1990s in response to Court decisions. Under the expanded version of the RCM, the *professional judgment approach*, teams of educators and service providers develop a prototype school district, specify resources and services needed to provide students with an adequate education, affix a price tag to each resource or service and derive a cost estimate through a summation of the various price tags. The cost estimate can be adjusted by checking for high cost students such as those with low socioeconomic status, limited English proficiency and special needs. Resources typically

include class size, personnel, technology, equipment, materials, and supplies. Additional variables such as transportation, operation, maintenance and administration can be included. An advantage of this approach is that it is easy to understand but a disadvantage is that it is too reliant on practitioner views (Verstegen, 2004). States that ordered adequacy studies are normally put off by the high cost estimates and claim that implementation is unaffordable.

The Empirical Approach, commonly known as the *successful school district approach*, utilises the actual expenditures of districts or schools that have met specified standards of student performance to estimate costs. Cost estimates can be adjusted by controlling for the factors that may affect student performance such as socioeconomic status, cost of living and enrolment fluctuations. Disadvantages of this approach include the exclusion of "outlier" districts, the fact that successful districts or schools are normally affluent and have student populations that are not comparable with low SES districts or schools with more diverse student populations. Furthermore all districts in a state may be inadequately funded. On this issue, Verstegen (2004) noted, "if the funding system is inadequate for all districts in the state ... then correlating spending in select districts to student outcomes will fail to capture the cost of an adequate education" (5).

Since the Kentucky Supreme Court decision of 1989, several states adopted one or a combination of the proposed approaches to determine the cost of an adequate education. Despite adequacy studies being conducted, "most states have not adapted to this new emphasis on student performance and educational adequacy" (Reschovsky & Imazeki, 2000, 1). Recommended cost estimates are normally higher than existing funding levels and state legislatures claim financial constraints when it comes to implementation of proposed adequacy models.

Challenges and counterarguments

Embracing adequacy meant a shift in focus from inputs to desired outputs. These outputs are part of educational accountability systems adopted by all US states during the 1990s. Emphasis is placed on all students achieving predetermined performance levels. However, the bar is set very low in some states. The past three years saw several states lowering their standards in order to meet *No Child Left Behind* (NCLB)² requirements. Thus, while holding schools accountable is commendable, adequacy may mean settling for mediocrity.

Various adequacy definitions have been advanced over the past 15 years. However, it still remains unclear how adequate funding levels ensure an adequate education. The findings of adequacy studies are inconclusive about the resources and required conditions under which an adequate education can be achieved. Furthermore, in efforts to define adequacy, the lines between education inputs and outputs become blurred (Minorini & Sugarman, 1999).

Pursuing adequacy through the courts has benefits and limitations. First, the purpose of education is highlighted. Some courts provide guidelines for defining an adequate education while others provide a definition. These guidelines or definitions include references to the kind of education that would enable students to function as citizens and participate in the labour market.

Second, adequacy court cases highlight the plight of poor students. According to Minorini and Sugarman (1999), "the claimants in educational adequacy cases still tend to be those who live in low-spending districts" (190). If these constituents did not have this avenue to have their voices heard, it would have been business as usual in many states. Minorini and

² The No Child Left Behind Act was signed into law in the USA in 2002. It requires states to establish academic standards for students, measure progress towards those standards, and publish state assessment results.

Sugarman (1999) surmise that in Kentucky, "opportunities to achieve learning at higher levels are being offered in areas of the state and to school children who prior to the reforms were not receiving such opportunities" (201).

The judiciary, however, has limited powers in terms of ensuring that the legislature carry out court orders. Legislatures may decide to drag their feet or not act on court orders at all. An example is the Alabama legislature that did not act on a court order to reform their school finance system (Minorini & Sugarman, 1999).

A further concern about the pursuit of adequacy through the court is the amount of time it takes for a case to make its way through the courts. Some educators or advocates argue that inadequacies are allowed to persist while the courts hear the case and the legislature work out remedies. The 1997 New Jersey Supreme Court decision that schools in poor districts be funded at the same level as their counterparts in wealthy districts while adequate funding levels are being developed seems like a fair solution in such cases.

In summary, adequacy as a school funding concept in the USA, evolved from equity but focuses on sufficiency and student performance rather than equality in the distribution of education resources. Adequate funding levels ensure equal opportunity for all students to achieve learning standards whereas an adequate education is essential for participation in political and economic life.

Adequacy in the South African context

In 2002 Fiske and Ladd introduced the concept of adequacy into the school finance discourse in South Africa. Until then the focus was on equity and redress. After the first democratic elections in 1994, the pursuit of equity and redress, consistent with the broader policy context, was necessary. The vast inequalities noted earlier, had to be corrected through the equal distribution and redistribution of resources.

Initial efforts to correct and redress inequalities included equalisation of learner:teacher ratios and recurrent funding levels. Despite the reported progress towards equity in these two areas, school finance researchers (Fiske & Ladd, 2004; Motala, 2005; Reschovsky, 2006) conclude that equity is an elusive goal. Progress towards equity and redress is compromised by severe backlogs in the poorest schools and limited government funding. Backlogs exist as a result of deliberate neglect of schools serving non-whites during the apartheid era. The White Paper on Education and Training states: "The unique pattern of South African inequality and underdevelopment has been laid down over the generations of minority rule and ethnically-based economic, labour and social development policies" (2). This underdevelopment has been laid bare in the 1996 and 2000 School Register of Needs (SRN), which documented the status of infrastructure provision in all public schools. Huge classroom backlogs and a lack of basic amenities in several black schools necessitate enormous amounts of capital investment. Fiscal constraints on the part of the government makes this a difficult undertaking.

Limited government funding of public education is associated with a shift in macro-economic policy. Nicolau (2001) explains how a shift from the Reconstruction and Development Programme (RDP), initiated in 1994, to the Growth, Employment and Redistribution (GEAR), initiated in 1996, impacted on the education budget and policies. Consistent with the goals of equity and redress, the government provided increased social services during the RDP era. However, fiscal discipline during the GEAR era meant a decline in the education budget (Nicolau, 2001). To supplement limited public funding, The SASA allows school governing bodies to levy private contributions from parents in the form of school fees. Motala (2005) found that these private inputs are much higher for affluent schools than the poorest schools. As a result the revenue gap between resource-rich and resource-poor schools increases. The inaction of government in this regard can be interpreted as tolerance of inequality.

Limited progress in achieving equity and fiscal constraints make adequacy an appealing funding principle. Fiske and Ladd (2002) also noted that, "The constitutional guarantee of a basic education in South Africa would make an adequacy concept of equity directly relevant to the education reform debate" (7). They argued that in following an adequacy approach to education funding, policymakers would have to define a basic education, determine the cost of such an education and then provide the necessary funding. They do, however, surmise that employing adequacy as an education funding principle in the South African context would be costly because a large proportion of learners are economically disadvantaged and research in the US suggests that the cost of educating such learners is normally high.

Inadequate resources have implications for the ability of schools to provide their learners with a decent education. Research suggests that resource levels are associated with school performance (Greenwald, Hedges & Laine, 1996). The *Grade 6 Intermediate Phase Systemic Evaluation Report of 2005* notes that "greater access to information and resources at school was found to have a high correlation with performance" (Department of Education, RSA, 2005, 2). Furthermore, Jansen (2005) argues that teaching materials, teacher quality and instructional time are related to student performance but warns that the relationship is complex. In his analysis of the 1991-2000 Grade 12 matriculation results Jansen found "inequality of outputs" among South African provinces. Lowest performance occurred in the poorest provinces such as the Eastern Cape and highest performance in the richer provinces such as Gauteng and the Western Cape.

At international level, South African students are outperformed by their peers. One such example is South Africa's performance in the *Third International Mathematics and Science Study* (TIMSS) – of 42 countries in 1995 and 38 countries in 1999, South Africa scored the lowest in both Mathematics and Science (Human Sciences Research Council, 2000). The same was true of South Africa's performance in the *2003 Trends in Mathematics and Science Study*. South Africa finished behind her African counterparts, Botswana, Egypt, Ghana and Morocco (U.S. Department of Education, 2004).

The cost of underinvestment in education or the provision of an inadequate education to large numbers of the population is huge. On a broader level it perpetuates poverty levels because it impacts negatively on educational attainment, which influences income, which ultimately influences the growth rate of the economy. Underinvestment in education also leads to an increase in dropout rates and is associated with higher crime levels.

Challenges of implementing adequacy in the South African context

Implementation of an adequacy model in the South African context poses several challenges. First, a clear definition of the concept in the South African context needs to emerge. Secondly, achieving equal educational outcomes requires sufficient state funding or instructional resources. Due to competing interests the South African government is unable to fund education at adequate levels. The education sector has to compete with other sectors such as health and welfare for scarce resources.

A third challenge is linking resource inputs with educational outcomes, i.e. learner performance. Desired levels of learner or school performance should be defined, its costs determined and funding should be sufficient to enable schools or learners to achieve those outcomes. The difficulty in costing an adequate education in South Africa lies in the absence of a locally relevant definition and a uniform or standardised set of output measures at all primary and secondary levels. The only existing output measures are the Senior Certificate/Matric exam and a more recent third grade exam (Financial and Fiscal Commission [FFC], 2005). Use of these performance measures to assess an entire system would be inappropriate and developing others would be a mammoth task.

In their comments on the proposed amendments to the National Norms and Standards for School Funding (NNSFF), the FFC recommends a definition of a "Basic Education" by the government through the setting of curricular and learner performance standards. These standards should form the centrepiece of the NNSFF. The recommended standards are consistent with key components of educational accountability systems in the USA.

Calculating the cost of an adequate education in South Africa will force schools to examine their expenditure so they can track the flow of resources. It will help them see how the money is spent and "on what" and will hopefully prompt a rethink of spending priorities at the school level. A focus on learner outcomes will also strengthen the human resource development agenda of South Africa.

Conclusion

While educators and researchers applaud the progress towards equity, valid concerns regarding the adequacy of resources are being raised. First, equal distribution of recurrent school funding does not mean overall equity, especially in South Africa where backlogs are huge and disparities in educational revenue increased as a result of school fees. The fact that learners still attend school under trees or in horse stables, while their wealthier peers attend schools that can compete with the best in the world in terms of infrastructure is unacceptable. Resource inadequacies in black schools and abundance of resources in former white schools are further indictments against a government that guarantees its learners a basic education in its constitution. Pursuing equity under these circumstances is challenging at best. Employing adequacy, coupled with redress as an interim measure in the pursuit of equity will be South Africa's best bet.

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