ABSTRACT

Quality indicators are statistics and information put into useable form. In education they are utilized to discern the health of education and help it improve, particularly in the realm of teacher hiring and retention. Whereas test-based assessments have often been used to determine a teacher’s effectiveness, particularly under U.S. initiatives such as No Child Left Behind, other countries have found personal qualities of teachers to be informative in this area. It would seem that the United States might want to consider a shift to such indicators, given the education gap that exists between American students and students from other countries today.

INTRODUCTION

Education has been failing in the United States for decades. School districts, states and the federal government have been searching for ways to stop this decline in learning, by passing accountability laws of various types: No Child Left Behind, Race to the Top, Every Student Succeeds Act. In the past, many teachers remained in their positions based on time and tenure rather than performance, but a recent California case. California, has held this practice unconstitutional as violating children’s rights to due process by making it nearly impossible to fire ineffective instructors, but with the new laws in place things have changed. Methods of determining a teacher’s performance quality are being developed and tested constantly by compiling statistics in many areas and analyzing their impact on teaching [1]. In fact, this is not only an issue in the United States, but quality indicators are being implemented in many countries and regions in an effort to hire and retain effective teachers in order to promote student learning and others. A quality indicator in education “provides information about the health of the educational system. A statistic becomes an indicator when it is useful in a policy context”. The concept behind this paper is to analyze a large sample of these indicators briefly in order to ascertain their potential for success in assisting teachers teach, and students learn.

QUALITY INDICATORS

One of the first quality indicators examined via study was teacher experience, specifically novice status of two years or less on the job. This study showed that the novice indicator had several impacts on teaching. First, teachers in their early years lack the experience to deal with difficult situations and are often inflexible. Hence, it is determined that districts hiring novice teachers have an interest in retaining the teachers so that they become experienced [2]. Unfortunately, the second aspect that these researchers uncovered was that novice teachers appear in higher numbers in school districts characterized by poverty, overrepresentation of minorities, and urban location. These factors have been shown to contribute to lower retention overall, and particularly for novice teachers. Therefore, regarding this quality indicator, the researchers suggested that “state and district policies could directly impact the rate of retirement, as teachers may be enticed to stay in the profession if the pay is substantially more than whatever pension compensation they might receive” which is akin to the California argument that tenure keeps ineffective experienced teachers from moving out, making it harder for newer teachers to move up the ladder. Some form of merit pay might be a partial solution to this issue.

Another recent study considered two indicators in an African school system: teachers who rely on individually-led activities versus those who rely on pre-packaged class materials. In this study, it was found that (especially experienced) “teachers who work together in sharing their knowledge and expertise are more successful educators” thus favoring teachers who plan their own lessons and collaborate [3]. A contradictory force, however, was school appearance and facilities, which were better at private
schools which utilized pre-packaged materials more often. Teacher perceptions of the quality of their students and schools apparently affected their motivation to put effort into teaching. Thus this study resulted in a mixture of findings, but mostly promoting teacher effort as the quality indicator most likely to predict success.

An American study covering sixteen states showed that teacher preparation and planning classes were of great value as a quality indicator. In terms of science and math, a comprehensive look at what teachers do in the classroom was undertaken by the National Research Council, beginning in 1988 and continuing to the present, and also studied for UNESCO in the Netherlands. Both studies examined input-output methodology (amount of teacher input compared to quality of student output) and process-product examinations (methods of teaching compared to quality of product). In both cases, the students’ achievements were the metrics that guided analysis of the indicators. The studies revealed that either system can point out teacher effectiveness, but that other parameters could be used to help teachers improve [4]. Subject matter knowledge was found to be essential, hence refreshers and competency tests were recommended in those areas. Particularly in the case of science and math, time spent outside the classroom was an indicator or quality; those teachers who engaged in subject-related hobbies and activities appeared to be more effective in instruction. Thus whether through preparation, planning, continuing education or self-interested pursuits, adding to a teacher’s own knowledge results in quality teaching, according to these studies [5-7].

Individual teacher characteristics can also be strong indicators of instruction quality. When making hiring decisions. This study emphasizes the following indicators are sought: individual perspective regarding education, caring for students and continuing academic growth [8-10]. These indicators will result in positive outcomes in the following, more specific indicators: Prerequisites of effective teaching (content knowledge, verbal ability, certifications, experience); the teacher as a person (i.e., personal attributes such as “caring, enthusiastic, motivated, fair, respectful, reflective, and dedicated individuals with a sense of humor who interact well with students”) classroom management and organization [14-15] (safe, orderly, productive, disciplined); planning for instruction (knowing subject matter, looking at big picture, and incorporating a variety of instructional strategies and resources to facilitate learning and differentiate for student needs); implementing instruction (i.e., instructional delivery using scaffolding, technology, and interest-holding, idea-generating techniques); and monitoring student progress and potential (i.e., student assessment and student expectations) [11-13]. These same strategies are reiterated substantially in the Missouri Teacher Standards handbook.

This study emphasizes using student achievement as a quality indicator of teaching effectiveness. She cites the national trend toward teacher responsibility evidenced in both No Child Left Behind and Race to the Top legislation; this indicator has been questioned by some as putting too much pressure on teachers, however, and has led to some movement toward more subjective evaluations [14-17]. Another way to look at this indicator without being bound to test scores, according to data, is to gauge student satisfaction and student results outside of school (which in the case of higher education could be employment opportunities, or per high school the number of graduates, and those continuing to further education).

In the United States there has been much movement toward standardization among states regarding instruction and teaching indicators [18-20]. The Core Curriculum standards have been one effort to achieve a minimum degree of uniformity across districts. Likewise, the National Alliance for Secondary Education and Transition has developed common indicators it believes should be applied in all districts. In generalized terms, these are: schooling, career preparatory experiences, youth development and youth leadership, family involvement, and connecting activities. While some of these indicators are repetitive of previously mentioned ones, such as schooling (which would imply knowledge of subject matter and certification) and preparatory experiences, others are unique to this proposal [3,9]. Specifically, focusing on family involvement, prior and continuing youth leadership outside of the school environment, and other connecting activities which enhance a teacher’s abilities in the classroom are indicators that would require additional probing to ascertain, particularly in the hiring process [21]. Nonetheless, these factors could add immeasurably to the teacher’s ability to connect and instruct students successfully.

Prior to the flurry of educational initiatives at the federal level, state quality indicators focused on two main categories: those regarding the school itself. Both of these have inherent problems, as can be intuited from potential biases or lack of opportunities reflected in either [22-24]. Burstein suggested a number of context-neutral indicators, including content validity, strength of relationships, alterability of presentations, understandability, reporting for various stakeholders, and variation in opportunities, comparability, and susceptibility to distortion. Although much work has been done to eliminate socio-economic or ethnic bias, particularly in opportunities (such as through charter schools), the indicators listed herein are those that teachers should be able to meet for effective instruction in any context.

In two foreign studies examined herein, more personal indicators outweighed some of the professional ones stressed by American studies. In Australia, mission, vision and objectives topped the list compiled by Darling, which then moved on to planning, observation, performance assessment, organization, and curriculum review. A Hong Kong study emphasized indicators such as ethics, physique, social skills, illiteracy, inquisitive mind, sense of responsibility, global outlook, technological adaptability, strength of character and respect for rule of law, none of which directly relate to classroom teaching responsibilities, but are important for an emerging global power [25].

CONCLUSION

The bottom line is that there has to be some method to determine if education is effectively administered, and quality indicators of the context and process surrounding teachers have been designated effective. The types of indicators that are
most useful, however, vary depending upon student needs and demography. While many indicators are performance-based, often derived from student performance and thus subject to inherent disadvantages faced by certain school districts, newer approaches, particularly overseas, stress teacher characteristics. Given the United States lag in educational ratings recently, perhaps more individualistic quality indicators that diverge from standardized test scores and other objective measurements, may be optimal given the diverse nature of teachers.

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