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JISTE is an official, refereed publication of ISTE. The goal of ISTE is to publish six to eight articles in each issue. Using the Seminar theme, articles in the first issue of each volume are based on papers presented at the previous seminar. Articles in the second issue are non-thematic. Points of view and opinions are those of the individual authors and are not necessarily those of ISTE. Published manuscripts are the property of JISTE. Permission to reproduce must be requested from the editor.

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From the Editor

In the last issue of JISTE (Vol. 12.1, 2008), Lotte Rahbek Schou described how the current emphasis on international comparison testing as exemplified by the PISA and TIMSS testing programs has given rise to a testing culture in the public education system in Denmark that is antithetical to their heritage of education built upon the foundation of Humboldt's *Bildung* philosophy and other philosophers of the Enlightenment period who promoted similar humanistic principles. These put the development of the whole child and children's nurturing teachers at the centre of the education enterprise instead of outcomes as measured by a testing system designed as part of an economic model of production.

In this issue several teacher educators echo Schou's arguments, reinforcing and expanding them from their own country's perspective. While Rebel from Germany and Fulcher from England take an historical approach to expanding on Schou's analysis, Simonsen takes a descriptive approach; but they all focus us on the dismay that fundamental principles that have been accepted as pillars of the education system in their respective countries, and have served the society well are now challenged by a testing system that attends only to part of what education is about, but absorbs a disproportionate amount of the educational resources deployed to ensure that students do well on these tests and a country (or province or state) ranks well against the others.

Moving across the Atlantic, the deleterious effects of test-based accountability are noted by both Volante in Canada and Wirtz in the USA, both of whom suggest that international comparison tests are limited in the data that they can provide to guide educational reform; so while these tests (PISA, TIMSS) should not be eliminated, their limitations should be acknowledged when jurisdictions use the results in educational planning exercises. All five respondents to Schou's article indicate caution, anxiety, or discomfort as Schou does, that high stakes testing tend to lead to the teacher teaching to the test, centralization of curriculum and the erosion of the teacher's professional role.

Many teachers approach their role with anxiety, and Sahakian and Elkham suggest that new teachers enter the profession with a high level of anxiety. One way for them to reduce their anxiety, amid the myriad expectations of them in a very complex, changing and demanding role, is to engage in a variety of professional development activities for personal and professional growth. The articles by Al-Yaseen, Dashti & Dashti and Al-Hashem & Karam report research about professional development activities and their effectiveness. The last article by McCaughan provides a useful guide to developing a data gathering instrument for doing survey research. This type of research is very common in teacher education and is the research method that was used to collect data in three of the four preceding articles.

Sybil Wilson (Canada)

From the Secretary General

With this publication we welcome you to another Volume of JISTE. JISTE has become an important source of knowledge sharing between the members of ISTE, the International Society for Teacher Education.

The *raison d'être* of ISTE is that education, knowledge and learning are decisive sources not only for the national communities but also for the prosperity of the World Community. Education by way of schooling and lifelong learning is a decisive social productive force, and a precondition for democratic development and cohesion. Once education and learning were more focused on regional and national issues, but they are now viewed as global matters. As a result, education and educational policy are issues which can only be completely considered and explained in a global perspective.

Research shows that the quality of teacher education is the single most important factor in determining the quality of

education and students' learning outcomes. In addition, it is generally accepted that modern, global teacher education programs need to increase prospective teachers' skills in competency areas like professional knowledge, social knowledge, educational and didactic knowledge, and the ability to connect educational theory and teaching practice.

The ISTE seminars are an opportunity for educators to discuss these competencies as well as other topics concerning teacher education and educational research. Please, consider this an invitation to join us at the ISTE 29th Annual Seminar – the Rocky Mountain Rendezvous - to be held at the Weber State University (WSU) campus, June 3 – 9, 2009 in Ogden, Utah (USA).

We look forward to seeing all of you at the ISTE seminar in Ogden in June 2009.

Lotte Rahbek Schou
Secretary General

Education Revisited in Favour of the Individual and Society – The Situation in Germany

Karlheinz Rebel

In the last issue of JISTE (Vol. 12.1) Lotte Schou discusses the misguided nature and negative outcomes of international comparison testing in Denmark. This essay, written from the German perspective, makes similar observations. There is a similarity with Denmark in the early influence of the Bildung approach to education in Germany; the disruption of this approach by the current emphasis on testing; and the undesirable consequences on the role, work and status of the teacher. While international comparison testing has served to awaken the politicians to weaknesses in Germany's educational system, as such is evidenced by poor test scores, testing does not provide the solution to the problems. Rather answers lie in centring the individual in the teaching-learning process, as Bildung advocates and having quality teachers who attend to the individual child. Unfortunately these are the processes that the present international comparison testing culture precludes in favour of highest scores on external tests.

We start with our analysis on the basis and in the long European tradition of humanistic thinking. When we speak of *education*, thinking of the gradually developed network of reflections on its character, its aims, its methods, etc. we have to admit that it is almost as old as human civilization, at least since mankind was able to include bringing up children more systematically in their daily routines. This period should at least start with ancient Greek and a little later with some Roman philosophers and educators (Both belong inseparably together). However the limited space forces us to shorten our historic review and choose as our starting point the European period of Enlightenment when it had reached its climax in the 18th century.

German educational representatives from this period to modern times were usually philosophers and theologians. Among the numerous and outstanding figures are: Immanuel Kant, Wilhelm von Humboldt, Friedrich Ernst Daniel Schleiermacher, Johann Friedrich Herbart, and there are many others who worked in this field. Building on their philosophical, theological and later psychological and genuine pedagogical thinking, they created the basis of our 19th and 20th centuries'

educational systems. A major and common feature is their increasing concentration on the *individual*: his or her intellectual richness, dignity, importance, human rights, and all of this always seen in relation to their communities and in some cases (especially Kant) also to mankind. We may call such approaches *humanistic Bildung*. This is definitely more than training and practise-oriented knowledge acquisition; instead it means education based on precise and relevant knowledge passed on by many generations; thus a treasure of knowledge collected in a *canon* which became the curricular basis for institutionalized education. Even more important, Bildung has to include a strong value and ethic orientation. Knowledge alone cannot be sufficient; *responsible acting* supported or even justified by a solid knowledge base has to be the aim in any good education system. The pride that many Germans have in their educational systems of all 16 States *was* based on this combination of knowledge and Bildung (This pride probably no longer exists; thanks to the international testing series!).

Bildung in Early German Education

However, there was and still may be a bit unbalanced and too narrow thinking connected with Humboldt's understanding of

humanistic Bildung which may have had its roots in his own and also his contemporaries' spirit of the age. In particular, Friedrich Wilhelm von Humboldt (1767 – 1835) is widely recognized as the “architect of the Prussian education system” which not only helped Prussia to recover from its defeat against Napoleon (1806/07) but became the basis especially of our secondary education “Gymnasium” and its leading idea of a humanistic Bildung. In his essay “*The Theory of Human Education*” written in 1793 Humboldt argued that “the ultimate task of our existence is to give the fullest possible content to the concept of humanity in our own person ... through the impact of actions in our own lives.” This task “...can only be implemented through the links established between ourselves as individuals and the world around us” (1981, p. 315). His ideal and practical aim was to support the middle class well-educated human individual.

Humboldt's ideal individual was to have equal rights based on independent thinking, but only in his quiet musing hours, free from the drudgeries of daily vocational, political, etc. routines. The reason for these restraints in understanding Bildung is that the nobility and clergy in Germany had almost completely occupied public life (especially in politics and also in institutionalized education). The only free space for Humboldt's ideal individual was the “space” above and beyond purposeful and economic, material-bound interests. Humboldt chose this gap and planted the small and young tree of his humanistic Bildung, supported by ancient languages, especially Latin and ancient Greek, based on the very modern insight into the essential role of mastering language. For him and his disciples, Bildung and cultivated language mastery belonged together (an insight which we now much better understand; thanks to modern brain research).

Humboldt's successors narrowed his approach, so that Bildung became something rather formalistic, almost free from daily life and its manifold obligations and responsibilities, especially for public affairs; and consistently almost only for the higher social classes which could materially and socially afford Bildung. The Abitur (the school-leaving examination from the grammar school in Germany) was the entry not only into university studies but - more generally expressed - into the Bildung world. The aspect of responsible acting based on learnedness and Bildung got lost by many educators and members of the leading social classes. The consequences of this social gap proved to be fatal, especially seen in the period of Nazism and the Second World War, but also now when globalization, the transfer to a Knowledge Society, and extremely fast social, economic, and political changes demand new qualities be developed by our youngsters.

The Present Dilemma

At this point we leave our short excursion into pedagogic history, hopefully with a better understanding of our present situation and in anticipation of the critical comments on our educational systems based on the results of international testing. The German problem is not a shortage of pedagogical theories. There has been and still is a rich treasure of them. Even if some theoreticians disagree, there are many theorists and practitioners who concur that, as a whole, the *structure* of our educational systems is not the main cause of their weaknesses. The unexpected, unsatisfactory results of the first international comparison testing (2000) worked like a shock similar to the shock in 1806 when the State of Prussia seemed to collapse. Principally the rather harsh awakening of a nation which had been self-congratulatory and proud of its education systems was unable to accept its weak points as identified by the results of

the TIMSS and PISA testing programs. Here an elaboration of these two programs may be helpful.

TIMSS (Third International Mathematics and Science Study) was, after a 15-year break, newly conceived and organized in 1994/95 by the *International Association for the Evaluation of Educational Achievement* (IEA). Its results were published in 1997-98. The aim was to gain reliable data on the achievements of about half a million students from 15,600 schools in 46 countries. The results from TIMSS/ III were as it were, forerunners of PISA and other international achievement tests.

Although TIMSS/III indicated some negative results for German students, the public media did not react in the same excited way as in case of PISA shortly afterwards. In comparison to international results the German students' achievement in mathematics and science was in the mid-table of TIMSS (2000), and this, for many Germans was quite unexpected. This result is valid for the vocational schools, as well as for the upper classes of the Gymnasium (grammar school), for mathematical-science literacy as well as for pre-university mathematics and science. The trend for the Secondary I level continued in the Secondary II level. When compared to the leading neighbouring European States, the achievement gap increased at first, then got smaller. Likewise the percentage of poor German achievers was unusually large, compared to the neighbouring states. This unwelcome trend was even more pronounced when compared to the top-class performances of students in Europe, hence a cause for even greater concern.

PISA (Programme for International Student Assessment of the OECD) was included in the Germans' program of student testing in 1998, by decision of the German Permanent Conference of

Ministers of Education and Cultural Affairs.

This was to be part of the German effort to have a clear picture of the output of the German school systems. (At that time 11 German States were responsible for education and culture at the school level and for the tertiary institutions like universities.) The general aim of the PISA projects (three cycles, one in 2000, 2003 and 2006, testing reading literacy, mathematics, and natural sciences) is to offer the member states of OECD (Organization for Economic Co-operation and Development) reliable indicators of the knowledge, abilities and skills of their 15-year-old students.

The first PISA cycle was in 2000 and focussed on reading skills. The publication of the first results at the end of 2001 was heralded by pre-reports during several weeks and had the effect of an overwhelming media echo. Soon the word "PISA-shock" was coined and reminded everyone of the Sputnik-shock and the violent debates about the "education catastrophe" of the 1960 decade. A whole nation was hit in the centre of its self esteem.

The third cycle of PISA with its focus on the natural sciences began in 2006. The German participating students reached, in the sciences, an average rank of eighth among the OECD member States and thirteenth among all participating States. For the first time the German students were above the mean value of the students in OECD States. In 2006 the low-achievers as well as the high-achievers were also able to improve their achievement and be above OECD mean level. However, the German students still belong to the group of countries, the students of which show a great heterogeneity in their school results. Germany is still the OECD country in which students with or without a "migrant background" show the strongest differences attributed to migration. The

causes for these great differences are social differences and language deficits.

The national awakening from the results of these series of international testing may be considered a helpful gift from the field of scientific evaluation. But there are limitations to these results, as is the case with much empirical research in the social sciences. Such quantitative data never explain the causes of certain system structures; and the interpreters of the test results are unable to use them to judge the *quality* of large systems or, more specifically, of the teaching-learning processes in classrooms. Our educational problems and shortcomings cannot be sufficiently explained by the *structure* of our educational systems.

The dense sequence of continuing international testing which seems to replace any other type of evaluation does not seem to be the best possible solution to our educational problem in Germany. As Lotte Schou (2008) said in her paper, one danger of the testing frenzy is that we all lose the centre of any pedagogic work: the *individual*. In Germany, the basis of our long educational tradition which is developed around the individual and which is theoretically well founded and flexible enough to allow for intensive reform where needed, should also be used in understanding and solving our present educational problems.

In these years we have a genuine renaissance of our scientific preoccupation with humanistic Bildung (in a current flood of academic publications and discussions); and in the reality of our today's schools, we have an opportunity to return to what Humboldt and his disciples thought had to be included in education: social responsibility for all children and youngsters- the normally gifted, the highly gifted and those with learning and or behaviour problems, indifferent to the social class they belong to. Besides, there

is no proof from research that keeping children of different social and intellectual potentials together for a longer period helps to avoid social injustices. According to research, (Pitte, 2007), in comprehensive (integrated) schools, as in the French system, the less gifted children do not really win; rather the well gifted may lose a little of their chances to develop their intellectual gifts fully.

Lotte Schou rightfully draws the reader's attention to the child who should "be viewed as having an independent perspective on life" (p.50). In the complicated process of the child's growing up and during his or her education, social and economic aspects are of course important. We have to admit that they may have been neglected in German institutional education, to a certain extent. But this is something quite different from the present trend to operate the educational sector by the paradigm of *economic profitability*, supported by the testing machinery and the cult of international testing by which "we will transform our schools and education into 'best' test and evaluation *factories*. The broader and fuller life perspective of the individual will be missing" (p.50). And she continues: "Vocational qualifications have replaced the Bildung ideals of the Enlightenment" (p.51).

I would like to strengthen Lotte Schou's stance from a German perspective. The emphasis on the role of the individual in any educational process is no contradiction to the opinion that education is so essential and important to all of us that *it has to be a public service*. But I think we are all led the wrong way when we accept today's dominating opinion, especially in political circles and perhaps in the OECD, that the public service called education has to be organized like a *private business* and placed within the same competitive paradigm as *business enterprises*. The negative consequences of this policy can

be seen in Germany in the role of our teachers.

In our pedagogical tradition the teacher's role can be defined as a promoter of the learning efforts of the children and youngsters helping them to learn how to lead an autonomous life. Now, similar to the recent developments in Denmark, we observe in the public opinion in Germany, a drastic devaluation of the teacher and his or her role. As in Denmark, similar judgements are made of teachers as incompetent, lazy, etc. We learn from recent brain research (Rebel, 2008) that learning is a process within the individual. The more autonomous and independent this process is the more successful it can be, provided that basic learning competencies have been developed, supported by *professional teachers and a public which values and encourages the teachers' work*. But instead of this general societal support, the teacher seems to be devalued and the professional status of our teachers sometimes seems to be systematically damaged.

A Way Forward

The argument against international comparison tests such as PISA and TIMSS is not to throw out testing from the education system. One way out of the dilemma described above is to provide critical and timely feedback, but not by an impersonal, expensive huge machinery as represented by the testing industry. Instead, feedback should be primarily by the teachers themselves (internal evaluation), and by pedagogic experts mostly from the region (external evaluation) rather than international. The impetus of our reform efforts should be on the development of the school and the improvement of teaching and learning in class or other learner groups and not in fruitless debates on structural changes that are generated by poor international test results.

In order to reach the aims of quality development internal and external (regional) evaluation should become a matter of course in which all concerned (teachers, parents, school administration and experts from tertiary institutions) should cooperate closely. Only a systematic and cooperative approach over a longer period can create the necessary conditions to reach agreement on: standards and methods of evaluation; what data are to be collected and analysed; and how best to use the results for further development of classroom work and schools. A key point ought to be the discovery or re-discovery of the *individual school* as the decisive pedagogic action unit. We have learned from qualitative research studies (Donnelly, 2003) that "soft" features (climate) of the individual school are of utmost importance for school and individual learner development. In the school, staff, students and parents are able to work together for improved school development according to criteria that they themselves cooperatively define. From the research on characteristics of a good school it is possible to deduce criteria for the evaluation activities.

Conclusion

What is needed in the German education system is not more testing within an economic productivity paradigm, but an improvement of the quality of teaching and learning in the classroom and the provision of effective and sustained quality control primarily by the teaching profession. The object of teaching and evaluation should be the individual learner. Therefore, having a positive climate in our schools is as important as the evaluation procedures. We should concentrate our limited resources on these points and analyse regularly the extent of our success at the levels of the individual learner and the school.

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The Influence of Testing in the English School System

Gordon Fulcher

This paper reflects on the historical links, drawn from differing philosophies of education, leading to the present state of outcomes reflected in schools in England. Such outcomes, currently expressed through league tables, magnify the role of testing in school education without necessarily showing that youths are educated well for the workforce or prepared for citizenship in the kind of humanistic and democratic society of which Schou speaks.

Many of the reflections and concerns raised in Schou's (2008) paper on international testing comparisons apply to the English system of school education today. Whereas the philosophical beginnings are similar, there has been much more and much earlier emphasis on the "investment-for-return" model of schooling in England. The growth of investment in education has been examined by detailed appraisal which attempts to assess quantitatively the "value for money" as determined by national testing and the production of league tables. Hence as the source paper states, Education is increasingly seen as an institution and a competitor in the state market place for capital funds. The current emphasis on league tables in England is viewed as an indicator of the outcome of education, via the presentation of a national curriculum within schools. Like Schou, I am arguing that this present emphasis fuels a shift away from the philosophical traditions of education that centred the pupil and the teacher in a nurturing and transactional relationship and generates an erosion of the traditional role of the classroom teacher.

A Reflection on Philosophies for Education

In England, as in Denmark, there were influential philosophers who offered explanations and directions for child development. The English philosopher Hobbes (1588-1679) noted that children needed strict training and discipline and that it was an error to see children as innocent. Centuries later Freud (1856-

1939) also emphasised the power of a child's nature, and the necessity of control by parents. However, as a balance to the view that children were inherently sinful, the writings of the French philosopher Jean-Jacques Rousseau (1712 -1778) saw children as "noble savages" and with a sense of morality in noting right from wrong. He (1762/ 1979) proposed an "age of nature" from birth to twelve years. His proposal was of an age of nature when the child's world should be recognised and respected. Froebel, the originator of the kindergarten movement also stressed the natural stages of development.

However, in moving child rearing and education from control and discipline, it was John Locke (1632-1704) who saw development related to experience. His proposal was of the child born in a state of "tabula rasa", and then developed by interaction. In many ways he saw the importance of association, and hence the foundation of behaviourism via imitation and repetition. The German philosopher, Immanuel Kant (1724-1804) rejected both the rationalist position of innate knowledge and the empiricist position of knowledge being gained solely from the environment and suggested a synthesis of the two. He refers to children being born with certain mental structures that help to interpret input via the senses, and so knowledge is gained in interaction with the environment. Thus both nature and nurture have critical roles in development. Kant's thesis is a transactional model that focuses on the continuous interaction of cause and effect. The transactional model

sees development as an interaction between the child and the environment (1781/ 2007). These varying philosophies over time took their turn in dominating the English school system, in similar ways as Schou described the case of Denmark, and consequently influencing how pupils have been taught, tested and evaluated.

Testing in English schools

England has a history of testing related to pupil selection and allocation to specific schools, often reflecting the social classes within English society. The work of Spearman (1904), Burt (1949) and later Vernon (1950) sought to present intelligence as comprising of general and specific factors, and argued that intelligence was 80% genetic inheritance. This would seem to prioritise the nature over nurture educational philosophies. Given this position it seemed logical to select pupils for specific schools and hence the “Eleven Plus” examination for secondary education was instigated for selection purposes and as such was a reflection of the social class system, which also goes back to the nature/nurture philosophies. Social class as inherited is part of the English societal ethos.

At the end of the World War II there was the implementation of the tripartite system in education. Nationally pupils were selected for academic grammar schools, technical schools and modern schools. Most went to the new modern secondary schools, soon renamed and denigrated to “those secondary moderns”. Selection was biased in favour of middle class children, and as Bantock (1967) of Leicester University reflected, it was related to the culture of the middle class. Starting in the 1960’s sociologists such as Bernstein (1971) began to examine the class bias in the society and especially as reflected in schools, and noted the wastage of the pool of talent. In essence the pool was comprised of pupils that had failed to gain a place at grammar school by means of the

Eleven Plus selection but subsequently achieved progress within the school system. These pupils were referred to as a latent pool of talent. In a sense, the failure of pupils at the Eleven Plus selection examination identified the latent qualities of such pupils, and in that sense testing was a positive contribution.

Comprehensive schooling, which Harold Wilson argued was a system for all, was proposed by the Labour government (circular 10/66) in the 1960’s. Selection for entry was via the Common Entrance Examination, which presumably was more equalising than the Eleven Plus. However 8% of parents, for reason of class or scepticism of the state school system or both, chose to pay for private education for their children. Today independent schools, which are allowed charitable status, have to demonstrate that they offer, often via bursaries, the opportunities for children unable to pay the fees to attend such private schools. Some independent schools are offering guidance to failing state schools, via the interchange of staff and the curriculum. Subsequently with the swings and roundabouts of democratic politics there was the Education Reform Act of 1989 which asked the fundamental question “What are we getting for the expenditure on education?”

Another major feature which grew out of intelligence testing, which was essentially an assessment of convergent thinking, was the emergence of creative or divergent thinking, suggesting a lack of correlation between intelligence and creativity. Education needed to accommodate these components. The work of Butcher (1968) at Manchester and Sussex universities distinguished between convergent and divergent thinking. Thus testing did identify different styles of thinking. Decades later the work of Gardner (1993) on multiple intelligence and Coleman (1998, 2001) identifying social and emotional intelligences, together with

Gregorc's (1977) mediation styles contributed to the growing understanding of varied intelligences that had implications for the testing movement. These historical views of philosophies of education and the nature of intelligence and testing are reflected in the current theories of education and their practice in schools through the curriculum, teaching and testing. There is behaviourism (Skinner), social learning theories (Bandura), constructivism (Piaget) and social constructivism (Vygotsky). Schou also mentions the work of the contemporary English philosopher R. S. Peters. It is worthy to note that little of what goes on in classrooms satisfies his three criteria for education. Often teaching is only instruction, training, or even indoctrination. For teaching to be truly educative, Peters (1966, 1970) proposes that it (1) has a wide cognitive perspective; (2) has intrinsic value; and (3) one must come to care about the activity. In the wider sense this meets Schou's wish to retain the humanistic perspective of the teacher's role.

English Education and Testing Today

So where is English education today? It is assessed by comparative national and international league tables within the market place. By 1988 the Education Reform Act saw the imposing structure of a national curriculum and assessment via the National Office of Ofsted (Office for Standards in Education), that working together, offered prescription for the evaluation of schooling. This of course has led to a reduction of the individual teacher's freedom to construct individual school programs. The national curriculum measures the educational development of children at ages 7, 11, 14 and the leaving GCSE (General Certificate of Secondary Education) examination at 16 years. The post-16 education A level is now being challenged by a proposed new 14-19 diploma which will attempt to marry the

academic and the vocational worlds. There is still a gaping hole in technical education. All of this prescription has led to an erosion of the teacher's professional role (as Schou argues) and this is reflected in the recent UNICEF (2007) overall ranking on child well-being that placed England 21st out of 24 wealthy nations. England is ranked 23rd out of 25 for the number of 15-year olds expecting to enter low skilled work. The report warns "more advanced skills are increasingly necessary if young people are to cope with the changing demands of labour markets" (p.22). There is an apparent incline of disadvantage.

The PISA (Programme for International Student Assessment) study published by the OECD (Organisation for Economic Co-operation and Development) tested 400,000 15-year olds in 57 countries on basic skills. The compared data for England are revealing. Table 1 below is the relative return for England's annual investment of 5.9% of GDP (£78 billion) which is a little above the OECD average! The Confederation of British Industry's (CBI) survey (2008) shows that half of all companies complain that recruits of school leaving age cannot really write or add. There is still inadequate provision for technical education.

These observations suggest that an overhaul of the national curriculum is needed, coupled with a focus on freeing the professional teacher from the straitjacket of testing and assessment and from the practice of "teaching to the test". A welcome development in this direction is the "Open Minds" syllabus, designed by the Royal Society of Arts (2005), which stresses "skills and competencies" relating to people, citizenship and managing situations, thus developing a more flexible workforce. This curriculum reflects a humanistic approach that School (2008) pleads for.

Table 1. England’s Rank on PISA, 2001 and 2007

Reading 2001	England 3 rd	2007	England 15 th
Science 2001	England 4 th	2007	England 14 th
Maths 2001	England 8 th	2007	England 24 th

In England today, league tables (rankings of schools) dominate the school system: curriculum, teaching and testing. Meeting the league tables' standards is paramount. There is the suggestion that this objective encourages the teacher to teach to the test and contributes to the erosion of the educative role of the teacher. The multiplicity of testing programs also means that even the committed teacher teaches to the test.

There is introduced into the system initiatives intended to increase a school’s standing on the league tables. There are grammar schools in some counties in spite of the comprehensive schools envisaged in the 1960’s, intended to moderate the class system and “equalise” educational opportunities; but such schools receive funding below the national average. There is the establishment of 400 City Academies, endorsed by commercial firms, which are supposed to be free from local council control. There are also guidance partnerships between independent schools and state schools, some of which have been placed in “special measures” by Ofsted as failing schools. This indicates that such schools need to improve Their league table standard. To do so they may be assisted by successful independent schools, but the independent school sector is not legislated to follow the national curriculum.

Where Are We Now?

Schou’s article is timely and well intentioned in expressing a concern for the liberation of education from the restrictive practices generated by league tables and comparison testing. The Sunday Times (November 18, 2007, p.12) headlined that, “It’s teachers [not testing] who make good schools”. Katy Ricks, the head teacher of Sevenoaks Independent Secondary School states “In the end success is about expectation and if you have high expectations people will rise to them.... there is no limit to what pupils and teachers can achieve” (p.12).

I am reminded that Greek civilisation took education to its heights, without international comparison testing and league tables. “They studied literature and music, gymnastics, philosophy and laid down the rules for mathematics and astronomy – the last two essential for feasting days. They believed that education should aim at a healthy mind in a healthy body” (Muir, 1976, p.59). But in England school education has been translated and transferred to the market place. The curriculum is prescriptive and the teacher teaching to the test is less an educator and more an instructor. League tables are prominent in directing teaching and testing, but they do little to enhance the educational endeavour; they do little to “renew and strengthen the need for a truly humanistic and democratic basis for education” (Schou, p.54).

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Tests in a School Based on Equality, Nearness to Nature and Student Participation

Birte Simonsen

Three fundamental principles, accepted as pillars of the education system in Norway, are now challenged by the increasing focus on international comparison testing. How these principles translate into curriculum and pedagogy at the elementary level is described showing why they are at the root of the resistance to the current testing wave.

International testing –a challenge to basic principles of education in Norway

The three principles – equality, nearness to nature and student participation - mentioned in the title of this essay have been highly valued in Norway since World War II. What is interesting is that, from the left wing to the right wing in the Norway Parliament, there has almost been a consensus on them as fundamental principles for the country's education. But, so it has been, until now! After three rounds of PISA (Programme for International Student Assessment) tests with results that put Norway far from the top, the consensus seems to have changed to a common search for better rankings, as measured by these international tests. The Finnish “ghost” is hanging over us, and never have so many Norwegian school leaders and politicians travelled to Helsinki.

Is it really necessary to deconstruct the kitchen if one meal doesn't taste good to you? This sigh came from the depth of an experienced teacher's heart, in a recent debate. The teachers in Norway are sceptical about how the tests dominate the life and image of the school. The complexity of education is now hidden behind a sort of neo-instrumentalism. The critique following the PISA results, also contains an “attack” on the long tradition of the Norwegian class teacher in primary school, who is educated and prepared to work as a generalist. This choice has been legitimated especially by means of social arguments, and until now it has been a broadly supported choice. It is not difficult to guess that many voices now argue for

specialist teachers from the first levels of school.

But it is not only PISA that is driving changes at this time. National tests which until now have been supported by a group of right wing politicians, have become a reality, and the results, which are published in the newspapers, seem to make earthquakes in many municipalities. It also seems that people outside of schools believe that these test results give the only and the best answer to the state of education in the country. So, during a very short period, the attitude to tests has changed dramatically, among politicians, among parents, and in the media; but (with emphasis), not among teachers. The teachers' position in this respect is often questioned in a suspicious light. Could it be that “bad” teachers defend their poor work? Why do they show this resistance? Is it a problem to have a test now and then? Perhaps one has to be an insider to see the cultural dimensions in the situation; how the system has shifted gradually towards “teaching to tests”, and also that quite opposite educational paradigms are supposed to be represented in the school system at the same time.

If we look at the curricula in Norway during the last four decades, we can note an obvious development from local professional freedom and much teacher responsibility to the evidence-based and centralized curriculum¹ of 2006 presented for pragmatic learning outcomes. Instead of aims in the different subjects, *basic skills* have been introduced. These skills are also the target for national testing. This

reality is, however, impossible to communicate to people outside the classroom. The main opinion is that the tests measure the status of *knowledge*.

Prior to 2006 all curricula had the intention of stimulating a form of meaningful and contextual learning, but now competencies seem to be the winner. The British philosopher, Gilbert Ryle (1949) developed in his book *The Concept of Mind*,² The distinction between *knowing that* and *knowing how*, which could give meaning to this discussion about international comparison testing. But the willingness to debate along such lines is, at this time, microscopic in the country. In seeking to better understand the testing resistance arguments, let us have a closer look at the three pillars of education that were introduced in the title: equality, nearness to nature and participation.

Equality

Most people will agree that Norway has developed a child centred school, and a school based on equality. On the Ministry of Education's website,³ we find this expressed in the following manner: *Wherever they live in the country, all girls and boys must have an equal right to education, regardless of social and cultural background and possible special needs*. The system offers ten years of compulsory school without any form of streaming, and the Act of Education includes a basic principle of individual adapted teaching. In 1976 all special schools were closed, opening up the possibility for handicapped children to attend their neighbourhood school. To realize real individual development, no marks are used before the students reach secondary school (8th grade). The new test society is indeed challenging this basic principle by the repetitive comparison of students, groups and municipalities. For teachers it feels schizophrenic to work inside two quite different rationalities where the individual's rights and needs

can be turned on and off from one moment to another.

Nearness to Nature

The next pillar in the description of the Norwegian school is the special cultural tie to nature. Immigrants used to comment that no country has such beautiful and warm school buildings as Norway, but still it seems to be a priority to spend a lot of time outdoors. *Never bad weather, only bad clothes*, is a common slogan among teachers. There has been a strong belief over a long time that playing and movement stimulate learning, and that closeness to nature develops a global consciousness and responsibility. One of the chapters in the general part of the curriculum bears the title, *The environmentally aware human being*, and the aims are ambitious:

It should awaken a sense of awe towards the unexplainable, induce pleasures in outdoor life and nourish the urge to wander off the beaten track and into uncharted terrain; to use body and senses to discover new places and to explore the world. Outdoor life touches us in body, mind and soul.⁴

Several municipalities have stated that primary school students shall spend at least one day each week in the nearest wood or island, making bonfires, climbing trees and learning scientific subjects. The different classes normally have a "home-area", a "100 meters' forest" (inspired by Winnie the Pooh),⁵ where they come back to every week, all through the year. Colleagues from other countries often comment on this. They find it strange that Norwegian teachers work outdoor in heavy rain or snow. A primary school in Oslo comments about the out-door activities on their home page,⁶ "The students get an adapted learning situation; they learn through excitement, activity and joy in a holistic cross curricular perspective". This

is only one example, but it describes a main attitude and a belief that the learning process should be understood in a holistic way, and that playing and well-being form a good start for knowledge development. The question now is, Can this stance survive the “new-speech” (testing talk) of the politicians?

Participation

These lively children are also supposed to participate actively in their daily situation. According to PISA 2003, they [the children] are not invisible. The students in Norway report that they are often disturbed by noise in the classroom. Somebody will comment that this is a bad situation, but others will recognize it more positively as a part of the curriculum concept, *the active student*. There is no doubt that the Norwegian school consists of very active and happy children, and that there is a positive dialogue between teachers and students. The defenders of the “old” school (from the 1970’s and 1980’s) try to broadcast how impressive Norwegian students’ results are when measured by CIVIC.⁷ They also underline

the fact that Finnish educationalists are keen to learn about the well-being of the Norwegian students! All curricula in Norway have emphasized that “to have a voice” is an important part of the democratic upbringing, and this principle is also embedded in the country’s Education Act. An ideal for Norwegian teachers is to look at students as subjects, not as objects. According to this basic principle, it would have been natural to ask the students if they really wish the test system to dominate that much in their everyday life. It seems like the national politicians have forgotten this detail. Students have, however, raised their voice through the students’ organization, and the answer is at the moment, No!

As this short glimpse at the international testing phenomenon in Norway has shown, there is a reason for resistance - traditional, cultural and systemic- in Norway and in Scandinavia, to the neo-liberal wave in education in Norway. The uncomfortable question is this, Is it only a wave or an irreversible development?

Notes

¹ http://udir.no/templates/udir/TM_Artikkel.aspx?id=2376

² In Concepts of the Mind, Ryle advocates two types of knowledge: knowing that something is the case (propositional knowledge) and knowing how to do something (procedural knowledge)

³ <http://www.regjeringen.no/en/dep/kd/Selected-topics/Compulsory-Education.html?id=1408>

⁴ http://udir.no/upload/larerplaner/generell_del/Core_Curriculum_English.pdf

⁵ Winnie-The-Pooh (1926) is the first volume of stories about Winnie the Pooh, by A.A. Milne (1882-1956). After Milne died in 1956, his wife Dorothy sold the film rights to Walt Disney in 1961; Disney created what we see today as the Winnie the Pooh animated stories.

⁶ <http://www.slemdal.gs.oslo.no/>

⁷ The International Association for the Evaluation (IEA) Civic Education Study tested 14-year-olds in 28 countries, including 17 OECD countries, on their knowledge of civic-related content, their skills in understanding political communication, their concepts and attitudes towards civics, and their participation or practice in this area.

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The Impact of International Comparison Testing in Canada

Louis Volante

This paper outlines Canada's participation and performance on the three major international assessment programs – the Programme for International Student Assessment (PISA), Progress in International Reading and Literacy Study (PIRLS), and the Trends in International Mathematics and Science Study (TIMSS) – and discusses the impact of international comparison testing on the Canadian education system. Particular attention is given to the policy responses to international comparison testing and ongoing reform of provincial education systems. The discussion also notes some of the deleterious effects that are associated with test-based accountability and concludes by offering some cautions on the trajectory of educational reform in this country.

Canada is a large country geographically and is second only to Russia in square kilometres. Unlike many other western nations, each of Canada's ten provinces and three territories assumes responsibility for their respective education systems under the Canadian Constitution. As a result, the Canadian education system is highly decentralized and largely controlled by elected provincial/territorial politicians who set policy in consultation with local school districts. Provincial/territorial education systems tend to reflect the unique geography, history, language and culture of their population. It is also worth noting that instruction in Canadian schools is provided in one of its official languages, English or French.

As in most countries, the importance of student achievement results and their value for spurring system reform is highly controversial in Canada. Rarely does a day go by when the media do not feature an article about the performance of Canadian students on international, national, and/or provincial testing measures, establishing and raising standards and measuring the attainment of those standards. Though achievement testing is intended to encourage excellence in schools, performance across schools, districts, provinces, and even countries internationally can be compared. Proponents of testing also argue that these

data are invaluable for directing school improvement efforts and represent one of the few available policy levers to facilitate system reform (Anderson & Postl, 2001; McEwan, 1999).

Nevertheless, scepticism is increasing about the utility of testing for school improvement purposes. External testing can result in several unintended consequences that may have deleterious effects on teachers and students. For example, testing can narrow the curriculum by its emphasis on basic skills and deskill teachers who teach to the test (Perkins-Gough, 2004). Testing also tends to detract from performance-based skills that do not lend themselves to paper-and-pencil measures such as speaking and listening. Research in Canada suggests that students are less motivated and there is a lower high school completion rate when important consequences are attached to provincial test performance (Volante, 2008). Lastly, standardized testing can be culturally biased; favouring middle class white students and thus widen the achievement gap – an important issue in Canada's increasingly diverse cultural milieu (Platt, 2004).

The previous cautions are drawn primarily from research documenting the impact of regional assessment systems that typically have immediate consequences for teaching

and learning. Thus, it is worth examining the impact of international comparison testing, which is typically administered to a smaller representative sample of students within Canadian provinces, as a way to inform the debate on the value of external testing. The next section outlines Canada's participation and performance on major international assessment programs before discussing the response to testing in this country.

Canadian Participation in International Comparison Testing

Canada currently participates in all three major international student assessment programs – the Programme for International Student Assessment (PISA), Progress in International Reading and Literacy Study (PIRLS), and the Trends in International Mathematics and Science Study (TIMSS). Each of these programs provides benchmark data to judge Canadian student achievement against international standards. These international assessments are used by policymakers to complement provincial assessment results and national achievement data collected through the Pan-Canadian Assessment Program (PCAP), which assesses a random sample of thirteen-year-old students in reading, mathematics and science.

PISA

This program of the Organisation for Economic Co-operation and Development (OECD) is designed to provide policy-oriented international indicators of the skills and knowledge of 15-year-old students. PISA focuses on three literacy domains: reading, mathematics, and science. Thus far, three cycles of PISA have taken place with two-thirds of the testing time devoted to a major literacy domain: Reading in 2000, Mathematics in 2003, and Science in 2006. In Canada, about 28,000 students in 1,000 schools were represented in the last sample which included more than 400,000 students from

57 countries. This robust sample (28,000), which is larger than that from most participating nations, is intended to provide achievement data from all ten Canadian provinces and provide estimates for both official languages (Volante & Ben Jaafar, 2008).

Since the initial administration, Canadian achievement has been well above average when compared against OECD and non-OECD countries. In 2000 and 2003, Canada consistently ranked in the top 7 countries for reading, mathematics, and science. Results from the most recent administration in 2006 placed Canada 4th in reading, 7th in mathematics, and 3rd in science. On all three administrations Canada possessed one of the smallest gaps between low and high achievers suggesting the Canadian education system, thus far, has done a fairly good job of attending to all segments of its student population (see <http://www.pisa.oecd.org> for more detailed PISA results).

PIRLS

This program of the International Association for the Evaluation of Educational Achievement (IEA) is designed to assess the reading literacy of fourth grade students to provide each country with an opportunity to examine educational policies and practices against a globally-defined benchmark. PIRLS is also intended to complement the IEA's Trends in International and Mathematics Study (TIMSS), which also assesses fourth grade students. Thus far, two administrations have taken place in 2001 and 2006. In 2001, the provinces of Ontario and Quebec were represented while in 2006 the Canadian sample included students from Alberta, British Columbia, Nova Scotia, Ontario, and Quebec. The most recent administration included 40 countries from around the world.

In 2001, Canada had the 6th highest international subscale score. In the most

recent administration, the Canadian provinces worked with IEA to ensure they could be reported separately and not collectively as a country, even though the participating provinces represented 88 percent of the student population (Mullis, Martin, Kennedy, & Foy, 2007). Thus, a national ranking against other countries is not permissible for the 2006 administration. Nevertheless, results indicated that Alberta, British Columbia, and Ontario were among the highest achieving participants. Nova Scotia and Quebec, with scores of 539 and 533, also scored higher than the average international subscale score of 500. Collectively, the results suggested Canadian students performed well on this international assessment program (see <http://timss.bc.edu/pirls2006/index.html> for more detailed PIRLS results).

TIMSS

This program is also conducted by IEA and is designed to provide data on the mathematics and science achievement of fourth and eighth grade students. To date, TIMSS has included testing sessions in 1995, 1999, 2003, and 2007. Since 2003, the assessment program has placed more emphasis on questions and tasks that assess students' analytical, problem-solving, and inquiry skills and capabilities. The most recent administration included 60 education systems including the Canadian provinces of Alberta, British Columbia, Ontario, and Quebec. The 2007 results are scheduled to be released in December, 2008. The overall pattern of results from the 2003 administration, which included Ontario and Quebec, suggested that students from both these provinces performed significantly higher than the international average in mathematics and science. Collectively, the pattern of results from three cycles of previous assessments indicate Canadian students, at least those from its two most populous provinces (Ontario and Quebec), are achieving above the international

average in mathematics and science (see <http://timss.bc.edu/TIMSS2007/index.html> for more detailed TIMSS results).

Canadian Response to International Comparison Testing

International comparison testing has had a noticeable impact on the development and implementation of provincial education policies. For example, in Canada's largest province, Ontario, the provincial assessment office known as the Education Quality and Accountability Office (EQAO) coordinates participation in the three international testing programs, and uses the findings to supplement and establish a context for school district and provincial assessment data. This information is used to assist in setting educational priorities and is considered valuable for improvement planning. Infrastructure and resources are inevitably directed toward the improvement of instruction in priority areas. One example of this is the establishment of the Literacy and Numeracy Secretariat (LNS) by the Ontario Ministry of Education. The chief mandate of the LNS is to help boost achievement by deploying over 80 student achievement officers (SAOs) who work directly with individual schools and districts across the province to build capacity and implement strategies to improve reading, writing and mathematics skills. Some educators have lamented that this focus often comes at the expense of non-tested subject matter. They argue that the narrowing of the curriculum that results from testing tends to alienate segments of the student population whose academic strengths lie outside of commonly tested subjects (Elementary Teachers Federation of Ontario, 2001).

Not surprisingly, provincial responses to international comparison testing are largely affected by the degree of success or failure relative to other educational jurisdictions. Provinces that achieve at a high level use the scores as a justification

to maintain or even intensify the current course of provincial priorities. For example, in Alberta, Canada's most successful province on international testing and second only to Finland in overall ranking, the results have been used to validate provincial policies and depict the province as an educational leader worldwide. Calls for system reform by teachers who disagree with a strong emphasis on testing have been muffled in the face of their strong showing nationally and internationally (Alberta Teachers Association, 2005). Conversely, low scores in the Atlantic Provinces (Newfoundland, New Brunswick, Nova Scotia, and Prince Edward Island) have been used to spark renewed calls for large-scale reform. The Canadian Centre for Policy Alternatives (CCPA) has succinctly summarized the quandary Atlantic Provinces find themselves in as a result of the widespread dissemination and increasing importance of international test results:

Here in Atlantic Canada we seem to be intent on joining the mad scramble to become as test-driven as Ontario and Alberta. We can reorient our school curricula and teaching methods in the way these provinces have and turn our schools back into drill and practice shops. This may indeed improve test scores but will it improve educational quality? ...It is my view that by doing these kinds of things we will diminish the inclusiveness and quality of our schools. At a broader level I think we need to move beyond questions about how well we did on a particular one-shot test to questions of evaluation or a consideration of what we value in the way of educational experiences and outcomes for our young people. (Corbett, 2004)

This sentiment is not only shared by individuals in under-performing jurisdictions but also those concerned that testing has fundamentally changed the public perception of teachers and their role as holistic educators that attend to all facets of development of the learner (Schou, 2008).

It is a bitter irony that provinces which score the highest on PISA such as Alberta and Ontario also have the lowest graduation rates, while provinces that score the lowest on PISA such as Prince Edward Island and New Brunswick have the highest graduation rates. The latter suggests that the Canadian quest for excellence in test scores has deleterious side-effects, namely, increasing drop-out rates in most provinces (Ross, 2005). These findings should provoke a more thoughtful discussion on the central role of schools and a re-examination of provincial policies around student achievement. More specifically, Canadian policymakers must be careful to not negatively skew teacher practice and student engagement by endorsing reforms that put a premium on achievement, but not necessarily authentic teaching and learning.

Some Final Thoughts on the Trajectory of Educational Reform

The Canadian education system, which is highly decentralized, has been fairly successful in avoiding some of the disastrous consequences of high-stakes testing that can be found in countries such as England and the United States. Teachers in Canada are not rewarded monetarily or officially sanctioned for high or low test performance. Nevertheless, the preceding discussion suggests that international comparison testing provides a stimulus, sometimes to the detriment of students, for system reform (or inaction) within some Canadian provinces. The exact nature of this reform inevitably depends on the relative ranking of individual provinces on these assessment measures. Those that

perform poorly often seek ways, largely through the adoption of more rigorously tested standards, to leap ahead in the horse race. The education community in Canada has largely argued against market-based solutions, as exemplified through test-based accountability models. Indeed, the inverse relationship between test scores and provincial graduation rates mentioned above, turns the economic impetus underpinning the standards-based reform movement on its head. That is, increasing the salience of international testing may actually diminish the Gross Intellectual Product (GIP) of a nation by reducing the total number of high school graduates and constricting the range of skills they acquire based on a skewed curriculum.

Given the importance of innovation /creativity and the limitations of paper and pencil measures, and in line with Schou's (2008) arguments, a sober second thought should be given to the trajectory of future educational reforms driven by testing. Perhaps our lead should be taken from students who have indicated that assessment has a positive effect on their learning and is fair when, according to Sambell, McDowell, & Brown (1997), it:

- Relates to authentic tasks;
- Represents reasonable demands;

- Encourages students to apply knowledge to realistic contexts;
- Emphasizes the need to develop a range of skills;
- Is perceived to have long-term benefits;
- Rewards genuine effort, rather than measuring "luck";
- Rewards breadth and depth in learning;
- Fosters student independence by making expectations and criteria clear;
- Provides adequate feedback about students' progression; and
- Accurately measures complex skills and qualities, as opposed to an over-reliance on memory or regurgitation of facts.

These elements of effective assessment strongly underscore the importance of authentic rather than traditional assessment approaches such as international comparison testing. This is not to suggest international comparison tests should be eliminated, but rather the limitations of the data they produce should always be acknowledged so that Canadian provinces, or other educational jurisdictions, do not chart a course with an inadequate compass.

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International Testing Comparisons: The U.S. Perspective and Experience

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Lotte Rahbek Schou (2008) presents some very striking issues regarding the increasing trend toward international testing comparisons and the impact testing has within countries on what and how schools are teaching, the image and role of the teacher and the learner. Comparing education across countries using testing has limited the views of what schools are and ought to be. In the United States the response has been to intensify the focus on testing and its results and to extend testing with the No Child Left behind (NCLB) federal legislation. The practice of stressing testing results as the primary measure of school purpose and success have had negative impacts on schools, communities, teachers and teacher preparation in the U.S.

Presented here is the argument that international testing has significant negative consequences and little benefit for schools in the U.S. or any country. In the U.S. testing has further narrowed the curriculum, distracted politicians and the public from the real issues that need to be addressed, and failed to recognize that it is harming some of the key sources of solutions to school improvement namely, well chosen, prepared, and supported teachers; fully funded schools; and well coordinated school and community initiatives.

International Testing: A Questionable Enterprise

As countries try to establish their place in the global society, international testing of children in schools, such as the Programme for International Student Assessment (PISA) are given as measures of school success and to demonstrate the “state of the nation’s schools” on the world stage. However, this is a somewhat misguided notion as it narrows the primary focus of schools and education to test scores, an artificial and limited perspective. Keith Baker (2007) reported that there is little association between these scores and national success. Stager (2005) argues that cynical political forces in the U.S. scare the populace with annual Sputnik hysteria, an unhealthy fear of foreigners, and a neurotic national identity when test scores are reported. Nichols and

Berliner (2007), in their book synthesizing broadly the research on high stakes testing, argue it is undermining the American education system.

The recent PISA survey (2007) across countries points out that the different countries and their cultures have dissimilar needs, goals, motivations, resources and belief systems. Stager (2005) stressed that it is not possible to “standardize” education or any other human endeavour as testing attempts to do. While questioning whether test scores are an appropriate measure of success, Baker (2007) compared the First International Mathematics Study (FIMS) test score of 1964 in participating countries with other measures over time and found a serious mismatch between these scores and the comparisons of countries. These alternative comparisons included wealth, rate of growth, productivity, quality of life, livability, democracy, and creativity. This analysis showed that international testing results do not correlate well with many of the substantial achievements of the countries.

The U.S. Response

American schools have been driven by test scores for some time. Most recently with NCLB, the focus has been on what can be tested and ignore or overlook what cannot. The prescription for American public schools is more testing, increased

sanctions, louder name-calling and longer seat time according to Stager (2005). Currently in the U.S. the NCLB requirements and the stress on international testing results tend to narrow the focus on what students should know and be able to do. Education policy leaders stress that “our children” must be able to perform at high levels in math, read effectively, perform and function technologically and the like. Then we test them only in the areas in which there are assessments. We do not apply widely measures of students’ problem solving or alternative thinking capacities which are critical for them to work with others in the U.S. and the world in order to find answers and alternative solutions as they move into adulthood.

Many educators in the U.S. argue that education is so much more than test scores and that testing is not teaching. What has emerged from this testing obsession is an ever narrowing of standards and objectives and a specific sequence of curriculum topics and skills, which as noted by Stager (2005), tends to defy what we know about learning theory such as: every learner is different; the nature of knowledge is fluid; and education success should not be measured primarily by recitation and recall. The concept that learning is social is not considered by standardized testing. In their analysis of the research on effective teachers’ practices, Lieberman and Pointer Mace (2008) point out that rather than being a solely individual process, learning involves experience and practice with actions that are intentional, involving community and learning with others. This essential broader view of what is schooling and learning is not being stressed in the curriculum because it is not being tested.

An additional dimension of NCLB (No Child Left Behind) is that after test scores are analysed there is a tendency to condemn schools, teachers, and

administrators whose schools do not score at the “targeted” levels. This accountability notion, to politicians and the public, seemed like the appropriate actions. Nichols and Berliner (2007) suggest that the impact of the high stakes testing is that it is destroying America’s schools. Schools are closed or threatened to be closed in communities where the school is one of the primary institutions which defines the culture and spirit of the community. The result of this “good intentioned” action is to destroy a cultural and institutional structure, the local school, which has been the basis for the long term solution to public education. What are the recommended solutions for replacing the schools? Charter schools, state funded alternative schools, or corporate sponsored private schools. These tend to bring a whole new staff, philosophy and culture into a community. The limited success of so many of these endeavours is in part based on a failure to understand the root causes of school test score failures.

Impact of Poverty

Poverty and related consequences are the root cause of struggling schools and low test scores on international as well as U.S. testing requirements (Borko, Whitcomb & Liston, 2008). Even the study that accompanied the PISA 2007 math and science test scores showed that the low scores in the U.S. are directly linked to poverty (Hopkins, 2007). Borko, Whitcomb, and Liston (2008) remind us that children’s living conditions are also their learning conditions. Health condition affects time in school and on-task performance. Other inhibiting features include housing conditions and limited access to technology, and cultural resources such as libraries and museums. Berliner (2008) argues that expecting achievement to rise while poverty rates stay the same or worsen is foolhardy. He stresses that the health care needs of these children must be addressed. When the U.S. officials overstress test results they

tend to ignore the critical issues such as poverty and its consequences. These issues have significant impacts on learning, test taking and test scores of children from homes of poverty. These children also attend schools lacking adequate resources. U.S. policy makers who blame teachers and schools and focus primarily on children's test results are not addressing that there is a serious lack of adequate governmental support for the education systems.

Teachers Matter

Building school programs in the U.S. or any country can only make the progress sought if teachers are central to the process. Teachers and the support structure that surround them are essentials for learner, school, and the larger community success. According to Borko, Whitcomb, & Liston (2008), the federal approach with NCLB seems to have diminished the dignity of the teaching profession. It tends to narrow criteria for defining teacher quality and underplays professional knowledge and their ongoing learning.

According to Sleeter (2008), students need teachers with high expectations for their students, who engage their minds, build on what they know, relate to their families and communities, and relate to the students' cultures. Berliner (2008) explains that quality teachers are those prepared to teach children of poverty, English language learners, new immigrants, and students of colour. Since raising the performance of all U.S. school children is of critical concern, then the focus must be on the selection and preparation of the "best fit" teacher pre-service candidates and the mentoring and ongoing recognition and support of the in-service professional educators. What teachers bring to children, their schools, families and communities is not really considered when test score results are the

primary focus of schooling.

Lieberman & Pointer Mace (2008) argue for the teacher learning community (TLC) approach to professional development. For guiding student learning they stress that teaching and learning are human collaboration endeavours that go beyond the more narrowly focused testing and test score analysis. This professional community approach can be seen in a recent analysis by W. Norton Grubb (2007) of Finland's successful intervention model for reaching the struggling learner. It describes the role of the teacher as diagnostician, team leader, and collaboration specialist. The teacher identifies and works to address learner needs as soon as perceived. The classroom teaching assistant is prepared and drawn into the instruction activities swiftly. If problems persist or are severe, then the special education teacher or the larger group of disability specialists joins the team in an ongoing collaborative cooperative model. Finland's success with these students is reflected in their leading PISA test results. This is clearly a broad-based learner centred approach.

Conclusion

International testing of children for the purposes of measuring the quality of a country's schools, economic potential, and quality of life is misguided and short sighted. In the U.S. the response to the results of the international testing program has frequently been excessive, off the mark, and resulted in inappropriate action. The U.S. has significant issues which must be addressed to lead to improvement of education for all American children. These issues centre on poverty and poverty related effects. The solutions in schools and out of schools cannot be primarily on raising test scores, but moreso on drawing teachers, schools, communities, and the government into a broad-based multifaceted long term set of strategies with the needs of learners at its core.

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A Humanistic Approach to Supervision to Minimise Negative Anxiety in Student Teachers

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The authors draw upon principles of humanistic psychology to suggest some supervisory strategies that are expected to reduce student teachers' anxiety and to improve teaching performance, in the light of national standards for teaching English. The subjects of the study, 31 third year English Major students in a teacher education program, who had teaching practice for the first time, were divided between an experimental and a control group. A Student Teacher Anxiety Scale (STAS), a Standards-Based Observation Checklist (SBOC), and a Student Teacher Evaluation Questionnaire (STEQ), completed by the student teachers, were used to collect data before and after a three-stage cycle of supervision. Major findings indicated that the student teachers of the experimental group, who were exposed to humanistic supervisory strategies, had lower anxiety levels and out-performed the student teachers of the control group in student teaching.

The research reported in this paper investigated anxiety among student teachers of English and the role of the supervisor in creating an atmosphere where anxiety can be productive rather than destructive. In finding solutions to the problem of anxiety as experienced by student teachers, the study raised the following questions: (1) what is the effect of some suggested humanistic supervision strategies on student teachers' anxiety about teaching? (2) Would such strategies help in improving student teachers' teaching performance? After discussing briefly sources of humanistic principles of supervision practiced in teacher education, the nature of student teacher anxiety and the supervisor's role in practice teaching, the study and its findings are presented.

Humanistic theory and the language of teacher education

From the work of Maslow, Rogers, and other humanistic psychologists, a number of themes about human nature and human learning emerge as common ground for humanistic education: the whole person, high-level well-being, motivation for self-realization, and self-empowerment or self-actualization. According to Roberts (1998), insights from such themes of

humanistic theory of behaviour help educators become aware of the affective dimensions of teaching, supervision and feedback and the learner-teacher's need for support. Heron (1990) suggests that in teacher education, facilitative interventions which are based on Rogers' model of person-centred counselling (Rogers, 1983), are cathartic as the supervisor allows the [student] teacher to express his/her emotions and feelings; catalytic as s/he encourages self-discovery towards self-empowerment; and supportive upon affirming the worth of the [student] teacher by praising and valuing what has been done. Such an approach to supervision helps student teachers to reduce their anxiety about practice teaching.

Anxiety

Anxiety creates feelings of tension, fear and worry. Woolfolk (1998) who defines anxiety as "general uneasiness, a feeling of tension" (p. 396), contends that anxiety is both a trait and a state. Some students tend to be anxious in many situations (trait anxiety), but some situations are especially anxiety-provoking (state anxiety). Gardener and Leak (1994) have suggested three aspects of the teaching experience

that may be a source of anxiety: activities related to the preparation of teaching, the anticipation of teaching, and interaction in the classroom setting. In the teaching practice literature that reports on student teacher stresses and anxieties, Morton et al. (1997) and Murray-Harvey, et al. (1999) noted that differential reactions to stressors and anxiety causes are likely to be a function of variables such as personality, gender and culture. Pigge and Marso (1994) revealed that introverted candidates expressed more anxiety and experienced a smaller decrease in anxiety than extroverts, whereas internally controlled candidates reported less anxiety than candidates with average or high externality. Further, Fish and Fraser (2001) support the finding that gender matters with anxiety; their study indicated that females with the least teaching experience showed higher levels of anxiety. Chubbuck, et al. (2001) indicated that novice teachers expressed a need for safety (non-threatening, non-evaluative emotional support), and a mix of support and challenge. These studies would suggest that special attempts be made to counter anxiety in teachers. In the case of student teachers, supervisors can help them to manage and even overcome their anxiety which can impact their practice teaching negatively.

The Supervisor's Role

One of the greatest challenges of program management in teacher education is the supervision of practice teaching. Most student teachers react defensively, even hostilely, towards supervision even though it is an essential part of the program and can be very helpful. Student teachers often view supervision as a threat and become anxious when interacting with their supervisors. These adversarial attitudes often stem from traditional (authoritarian) supervisor-supervisee relationships and the unsystematic and subjective nature of the traditional classroom visits that are usually unannounced, scary, supervisor-centred,

authoritarian, directive, and judgmental (Acheson & Damien, 2003; Acheson & Gall, 1992; Stoller, 1996). A challenge for teacher educators is how to change negative attitudes towards supervision so that student teachers can benefit from their experience of practice teaching. Rather than be scared and resistant, they can see supervision as contributing to their professional development and improved instruction. What is needed is a model of supervision that incorporates more productive supervisor/supervisee interactions and thus better relationships and teaching outcomes.

Purposes of the Study

This study aimed to:

1. Develop an anxiety scale for measuring student teachers' teaching anxiety;
2. Suggest a supervisory strategy based on a humanistic approach that would help lower student teachers' anxiety level during practice teaching;
3. Create a more relaxed atmosphere for student teachers in which they would be more receptive to their supervisor's interventions and hence improve their classroom teaching performance;
4. Create a standards-based student teacher observation checklist including sample indicators from STEPS to examine student teacher performances.

Statement of the Problem

The current study investigated the effectiveness of a proposed supervisory strategy with humanistic characteristics for reducing student teachers' negative anxiety about teaching and improving their standards-based classroom teaching performance. More specifically, the present study attempted to answer the following questions:

1. What is the proposed supervisory strategy for reducing the student teachers' teaching anxiety?
2. To what extent is the proposed

supervisory strategy effective in reducing the student teachers' negative teaching anxiety?

3. To what extent is the proposed supervisory strategy effective in improving the student teachers' classroom teaching performance?

4. What are the student teachers' reactions to the supervisory strategy used?

Hypotheses of the study

The following hypotheses were adopted for the study:

1. There are statistically significant differences - at 0.01 levels - between the mean scores of the experimental and control group subjects on the post-test regarding their anxiety level as measured by the Student Teacher Anxiety Scale, in favour of the experimental group.

2. There are statistically significant differences - at 0.01 levels - between the mean scores of the experimental and control subjects on the post-test regarding their classroom teaching performance as measured by the Student Teacher's Performance Observation Checklist, in favour of the experimental group.

3. Student teachers will show positive reactions toward the proposed supervisory strategy.

Methodology

Participants

The sample of the present study consisted of 31 female student teachers. They were third year English Majors in the Foreign Languages Department, Faculty of Education, Mansoura University. They were in two groups attending their teaching practice at two preparatory schools, one in Talkha Preparatory School for Girls in Talkha city and the other in Shagaret El Dor School for Girls in Mansoura city. The sixteen student teachers at Talkha School formed the experimental group and the fifteen student teachers at Shagaret El Dor School formed the control group. The experimental group was supervised by one researcher and the

control group was supervised by the other researcher. Both researchers had previously planned their roles as supervisors which they maintained until the end of the study.

Data Collecting Instruments

Three tools were designed for and used in this study: the Student Teacher Anxiety Scale (STAS), the Standards-based Observation Checklist (SBOC) and the Student Teacher Evaluation Questionnaire (STEQ)

The Student Teacher Anxiety Scale (STAS).

Through a survey of the literature that dealt with anxiety, the following factors were identified as main components of anxiety: worry, emotionality, and physical and psychological disturbances. These factors were considered when developing the Student Teacher Anxiety Scale (STAS), which aimed at measuring the anxiety state of student teachers before and after use of the suggested supervisory strategy. The STAS consists of 31 items on a 4-point Likert scale format, "Never", "Sometimes", "Often", and "Always". For each item the student teachers choose one of the four responses that best expresses their state of anxiety.

A preliminary version of STAS was presented to five jurors to judge how suitable the instructions and the items were. Only items that received over 80% approval from them were chosen for the final form of the scale. Some of the approved items were rephrased in light of the jurors' comments. The reliability of the scale, measured by the Alpha Formula for internal consistency, was determined to be 0.91 which is considered high. STAS is in Arabic so as to minimise any misunderstanding by the student teachers due to language.

The Standards-based Observation Checklist (SBOC) is a standards-based performance evaluation tool. The aim of

the SBOC is to evaluate the extent to which student teachers' teaching performance is affected by the suggested supervisory strategy. The items of the checklist are select sample indicators from STEPS: The Standards Document (2003). The standards and indicators chosen represent the Classroom Management and Language domains. This limitation was based on classroom operability and expectancy to reflect a reduction in student teachers' anxiety levels. For example, the item: The S.T. (student teacher) uses questioning techniques which offer challenge, build confidence, and provide students with opportunities to extend and develop their language proficiency (Domain 1: Classroom management, Standard 1, Indicator a) and the item: The S.T. uses a variety of questioning techniques to check students' understanding (Domain 3: Instruction, Standard 3, Indicator a) are quite similar and so are included in the same list.

Prior to implementing the supervisory strategy, the student teachers of both the experimental and control groups received instruction on standards awareness and practice using the standards-based observation checklist (SBOC). This was done once weekly for two consecutive sessions; so both groups had equal training in the use of standards-based observation. The student teachers of both groups were evaluated during observation. The control group was supervised according to the traditional way, which focused mainly on the supervisor criticizing the student teacher's performance during their meeting (after teaching) in the presence of the whole group of student teachers.

The Student Teacher Evaluation Questionnaire (STEQ) is a tool used by each student teacher to record her personal assessment of the supervisory strategy that she experienced. The questionnaire consists of 14 items that represent the main supervisory behaviours included in the

suggested supervisory anxiety reduction strategy- in two forms. The first form indicates student teachers' opinions of how frequently they believed the supervisor displayed each behaviour. The second indicates to what extent they believed each of these behaviours positively affected their teaching performance. The STEQ follows a 4-point Likert scale format whereby the student teacher chooses one of the following responses that best expresses her opinion, "Never", "Sometimes", "Often", and "Always". Five jurors reviewed a preliminary version of the STEQ to judge the suitability of the instructions and the items. Based on their responses, some items were rephrased.

Description of the Proposed Anxiety Reduction Strategy. The supervisory strategy provided in the present study is based on a review of the literature on humanistic views of teacher education and the role of the supervisor in clinical supervision. The strategy is developed in a three-stage cycle for ease of implementation by the supervisor: the pre-conference, the classroom observation, and the post-conference. In the pre-conference phase the supervisor is expected to create good rapport with his student teachers. Humanistic statements for confirming the worth of student teachers' expression of feelings and opinions and providing support are highly recommended. Before class supervision both supervisor and student teacher agree on the focus of the observation and the way of collecting data. In classroom observation the supervisor respects agreements. In the post-conference the student teacher is allowed to talk, first reflecting on how the lesson went, then the supervisor praising good points, uses positive language when referring to mistakes.

Results and Discussion

In an attempt to verify the first hypothesis of the study, which concerns the effect of the experimental treatment on student

teachers' anxiety level, a non-parametric Wilcoxon signed rank test was conducted on signed ranks of the differences between the 16 paired pre- and post test scores of the respondents in the experimental group on STAS. The sum of the signed ranks, which constitutes the test statistic for the Wilcoxon test, resulted in a value of $W = 136$ (also denoted by $S = 136$). The critical two-sided values associated with the test, for observations from both experimental ($n=16$) and ($n=15$) control groups, and significance levels of either 1% or 5%, are tabulated as $W_{(16; 0.05)} = 30$ and $W_{(16; 0.01)} = 20$, which signifies statistical significance in this instance. (see Appendix 1)

Significance implies statistically significant differences between pre and post test scores for the experimental group in favour of the pre test where the pre-test scores were significantly higher. This indicates high levels of anxiety compared with the low scores of the post-test. This means that student teachers' levels of anxiety were reduced due to the use of the suggested strategy, thus verifying the first hypothesis of the study. This finding concurs with research in other subject teaching areas that suggest various ways to prevent and reduce anxiety: designing better teaching practices (Steele and Arth, 1998), creating a comfortable atmosphere (Jackson and Leffingwell, 1999; Steele and Arth, 1998), providing encouragement (Jackson and Leffingwell, 1999), using alternative assessment (Steele and Arth, 1998), and exhibiting a better understanding of learning styles (Fotoples, 2000; Chubbuck, et al., 2001).

On the other hand, a non-parametric Wilcoxon signed rank test conducted on the signed ranks of the differences

between the 15 paired pre- and post test scores of the respondents in the control group on STAS proved to be non-significant. The sum of the signed ranks, which constitutes the test statistic for the Wilcoxon test, resulted in a value of $W = 60$ (also denoted by $S = 60$). The critical two-sided values associated with the test, for $n=15$ observations and significance levels of either 1% or 5%, are tabulated as $W_{(15; 0.05)} = 25$ and $W_{(15; 0.01)} = 16$, which signifies non-significance (see Appendix 1). Non-significance in this instance implies that there is no statistically significant difference between the post-test and pre- test scores for the control group. This means that the traditional supervisory strategy had no significant effect on reducing the levels of anxiety of student teachers in the control group.

In order to verify the homogeneity of the two groups with regard to anxiety levels at the onset of the study, a Mann-Whitney-Wilcoxon U-test was conducted on the combined ranks of the scores of the control and experimental groups for the pre test of STAS. Table 1 below shows that there is no statistically significant difference on the pre- test between the medians of the experimental and control groups; so the groups were drawn from a single population at the start of the experiment and thus homogeneous with regard to anxiety levels. With regard to the post STAS test rankings; there is a statistically significant difference, as shown in Table 1, between the median of the experimental group and the median of the control group in favour of the experimental group. This means that the student teachers' anxiety level was significantly reduced due to the use of the suggested humanistic supervisory strategy.

Table 1. Mean Rank of Two Groups on the STAS

Test	Group	N	Mean Rank	Sum of Ranks	U	Significance level
Pre	Experimental group	16	18.91	302.50	73.5	Not sign.
	Control group	15	12.90	193.50		
Post	Experimental group	16	9.88	158.00	22	0.001
	Control group	15	22.53	338.00		
Critical value associated with both tests: $U_{(16;15;0.05)} = 70$						
The critical value of the two-tailed Mann-Whitney-Wilcoxon U-test with $n_1=16$ and $n_2=15$ observations for the experimental and control groups at a significance level of 0.05, is $U_{(16;15;0.05)} = 70$						

Table 2. Mean Rank of Two Groups on Items of the SBOC Pre-test

Item	Group	N	Mean rank	Sum of ranks	U
Item 1	Control	15	16.37	245.50	114.5
	experimental	16	15.66	250.50	
Item 2	Control	15	17.43	261.50	98.5
	experimental	16	14.66	234.50	
Item 3	Control	15	19.00	285.00	75
	experimental	16	13.19	211.00	
Item 4	Control	15	16.77	251.50	108.5
	experimental	16	15.28	244.50	
Item 5	Control	15	16.27	244.00	116
	experimental	16	15.75	252.00	
Item 6	Control	15	14.57	218.50	98.5
	experimental	16	17.34	277.50	
Item 7	Control	15	15.03	225.50	105.5
	experimental	16	16.91	270.50	
Item 8	Control	15	16.73	251.00	109
	experimental	16	15.31	245.00	
Item 9	Control	15	15.60	234.00	114
	experimental	16	16.38	262.00	
Item 10	Control	15	17.00	255.00	105
	experimental	16	15.06	241.00	
Item 11	Control	15	16.27	244.00	116
	experimental	16	15.75	252.00	
Item 12	Control	15	15.43	231.50	111.5
	experimental	16	16.53	264.50	
Total	Control	15	16.27	244.00	116
	experimental	16	15.75	252.00	
Critical value associated with each test: $U_{(16;15;0.05)} = 70$					

In order to verify the second hypothesis of the study which concerns student teachers' performance on the SBOC, a comparison between the combined ranking of the control and experimental groups' scores on the pre-test of the SBOC was conducted by means of Mann-Whitney-Wilcoxon U-tests. Individual tests were conducted on each of the twelve items of the SBOC. Results presented in Table 2 below show that there is no statistically significant difference between the medians of the experimental and control group for the pre-SBOC test. At the 1% level of significance, the values of the calculated statistic, U, for each one of the twelve items of the observation checklist are non-significant when compared against the

critical value of $U_{(16;15;0.01)} = 55$. This means that the groups were homogeneous with regards to performance evaluation on the SBOC before implementing the suggested supervisory strategy with the experimental group.

The Mann-Whitney-Wilcoxon U-test was conducted separately on the twelve items of the Standards-based Observation Checklist, after administering the experimental treatment, to verify whether the experimental and control groups' performance evaluation on the post-SBOC were homogeneous. Tests were performed on the combined ranking of SBOC scores for each item. The results are presented in Table 3 below.

Table 3. Mean Rank of Two Groups on Items of the SBOC Post-test.

Item	Group	N	Mean Rank	Sum of Ranks	U
Item 1	Control	15	10.73	161.00	41**
	Experimental	16	20.94	335.00	
Item 2	Control	15	10.10	151.50	31.5**
	Experimental	16	21.53	344.50	
Item 3	Control	15	10.00	150.00	30**
	Experimental	16	21.63	346.00	
Item 4	Control	15	9.13	137.00	17**
	Experimental	16	22.44	359.00	
Item 5	Control	15	8.50	127.50	7.5**
	Experimental	16	23.03	368.50	
Item 6	Control	15	13.10	196.50	76.5
	Experimental	16	18.72	299.50	
Item 7	Control	15	9.27	139.00	19**
	Experimental	16	22.31	357.00	
Item 8	Control	15	8.67	130.00	10**
	Experimental	16	22.88	366.00	
Item 9	Control	15	11.10	166.50	46.5**
	Experimental	16	20.59	329.50	
Item 10	Control	15	10.53	158.00	38**
	Experimental	16	21.13	338.00	
Item 11	Control	15	11.10	166.50	46.5**
	Experimental	16	20.59	329.50	
Item 12	Control	15	9.93	149.00	29**
	Experimental	16	21.69	347.00	
Total	Control	15	8.90	133.50	13.5**
	Experimental	16	22.66	362.50	
Critical value associated with each test: $U_{(16;15;0.05)} = 70$					

The calculated value of the U statistic for each item of the SBOC checklist is significant at 1% level of significance when compared against the relevant critical value, except item 6, [The supervisor] does not interfere with classroom proceedings. This means that the experimental group outperformed the control group in their teaching performance due to the suggested supervisory strategy that was used. Hence, the second hypothesis of the study, that there is statistically significant difference - at 0.01 levels - between the mean scores of the experimental subjects and those of the control group subjects on the post-test regarding their classroom teaching performance as measured by the Student Teacher's Performance Observation Checklist in favour of the experimental group is well proven. This result is consistent with the literature which suggests that applying humanistic principles to the observation of teachers can be helpful and is conducive to high productivity (Conley, 1996), as well as, to the fact that anxiety both as a trait or state could be lowered by training (Bowers, et al., 1983; Capel, 1997; Chubbuck, et al., 2001).

In order to further confirm the effectiveness of the experimental treatment in promoting student teachers' teaching performance, a Wilcoxon signed ranks test was conducted on the signed ranks of the differences between the pre and post SBOC scores of the experimental group. The results indicated, at the 1% level of significance, that for each item of the SBOC statistically significant differences exist between the medians of the pre and

post tests in favour of the post test. These results are not included but can easily be substantiated from the data included in this report.

The third hypothesis anticipated that student teachers would show positive reactions toward the supervisory strategy. The student teachers were asked to evaluate the frequency of occurrence of the suggested supervisory anxiety reduction behaviours by responding to the items on the STEQ. Table 4 shows the results. The most frequently repeated behaviours from the viewpoint of student teachers were: the supervisor not interfering with classroom proceedings (Item 6); the supervisor allowing the student teacher to talk first asking her to reflect on what she did in class (Item 8); the supervisor giving specific praise for areas of excellence (Item 12); and the supervisor talking about good points first (Item 9). It should be noted that, for all 14 items on the scale, the responses fell in the "often" and "always" categories, thereby indicating a very high level of occurrence.

The least repeated behaviours as viewed by the student teachers were: the supervisor speaks about personal experience when he was a student teacher (Item 3) and giving help in Arabic when necessary (Item 10). Responses on this item may reflect the simplicity of the language required for teaching practice and using the English language in class more frequently which is seen as desirable for increased opportunities to practice the language as well as for work.

Table 4. Frequency distribution of the Experimental Group’s Responses to the Student Teachers' Evaluation Questionnaire (STEQ)

No	Supervisor behaviour	Never		Sometimes		Often		Always	
		F	%	F	%	F	%	F	%
<i>Before Teaching: Supervisor</i>									
1	Has a sense of humour.	0	0	0	0	8	50	8	50
2	Creates a sort of personal relation with his S.T.s (e.g. encourages them to speak about problems.)	0	0	0	0	5	31	11	69
3	Speaks about personal experience when he was a S.T.	0	0	3	19	12	75	1	6
4	Uses words/expressions that increase confidence and reduce anxiety.	0	0	0	0	5	31	11	69
5	Makes it clear that expression of emotion is acceptable.	0	0	0	0	5	31	11	69
<i>During Classroom Observation: Supervisor</i>									
6	Does not interfere with classroom proceedings.	0	0	0	0	1	6	15	94
7	Provides support for the S.T. (e.g. a smile, a nod of the head...)	0	0	0	0	3	19	13	81
<i>After Teaching: Supervisor</i>									
8	Allows S.T. to talk first asking him to reflect on what he did in class.	0	0	0	0	1	6	15	94
9	Talks about good points first.	0	0	0	0	4	25	12	75
10	Gives help in Arabic when necessary.	0	0	5	31	8	50	3	19
11	Uses simple language and avoids difficult terminology.	0	0	0	0	8	50	8	50
12	Gives specific praise for areas of excellence.	0	0	0	0	2	12	14	88
13	Assures that mistakes are natural.	0	0	1	6	7	44	8	50
14	Encourages S.T.s to look forward for future plans.	0	0	0	0	4	25	12	75

While Table 4 presents the frequency of occurrence of the supervisor's anxiety reduction behaviours from the viewpoint of the student teachers, Table 5 presents their own evaluation of the effect the suggested supervisory strategy had on their teaching performance.

Table 5. Student Teachers’ Evaluation of the Effect of Supervisory Strategies on their Teaching Performance as Measured by the STEQ

No	Supervisor behaviour	Never		Sometimes		Often		Always	
		F	%	F	%	F	%	F	%
<i>Before Teaching: Supervisor</i>									
1	Has a sense of humour.	0	0	0	0	7	44	9	56
2	Creates a sort of personal relation with his S.T.s (e.g. encourages them to speak about problems.)	0	0	0	0	2	13	14	87
3	Speaks about personal experience when he was a S.T.	0	0	0	0	8	50	8	50
4	Uses words/expressions that increase confidence and reduce anxiety.	0	0	0	0	2	13	14	87
5	Makes it clear that expression of emotion is acceptable.	0	0	0	0	3	19	13	81
<i>During Classroom Observation: Supervisor</i>									
6	Does not interfere with classroom proceedings.	0	0	0	0	3	19	13	81
7	Provides support for the S.T. (e.g. a smile, a nod of the head...)	0	0	0	0	6	37	10	63
<i>After Teaching: Supervisor</i>									
8	Allows S.T. to talk first asking him to reflect on what he did in class.	0	0	0	0	9	56	7	44
9	Talks about good points first.	0	0	0	0	3	19	13	81
10	Gives help in Arabic when necessary.	0	0	0	0	8	50	8	50
11	Uses simple language and avoids difficult terminology.	0	0	0	0	10	63	6	37
12	Gives specific praise for areas of excellence.	0	0	0	0	1	6	15	94
13	Assures that mistakes are natural.	0	0	0	0	7	44	9	56
14	Encourages S.T.s to look forward for future plans.	0	0	0	0	3	19	13	81

The frequency distribution in Table 5 suggests that the most influential supervisory behaviours from the viewpoint of the student teachers were: the supervisor giving specific praise for areas of excellence after teaching (Item12); creating a personal relation with teachers (Item 2); using words and expressions that increase confidence and reduce anxiety before teaching (Item 4); making it clear that expression of emotion is acceptable (Item 5); not interfering with classroom

proceedings (Item 6); talking about good points first (Item 9); and encouraging student teachers to look forward to future plans (Item 14).

The least effective supervisory behaviours from the viewpoint of the student teachers were: the supervisor allows the student teacher to talk first asking him to reflect on what he did in class (Item 8); giving help in Arabic when necessary (Item 10); uses simple language and avoids difficult

terminology (Item 11); and speaks about personal experience when he was a student teacher (Item 3). It should be noted that none of the responses fell into the category of “never” or “sometimes”; all the student teachers in the experimental group viewed all the supervisory behaviours as either “often” or “always” influential, thus positively.

A comparison of the results in Tables 4 and 5 revealed that roughly similar response patterns were reported on all items within the two tables suggesting response pattern agreement in the two tables. This suggests that a frequently repeated anxiety reduction behavioural strategy positively affects teacher performance. This further shows the effectiveness of the suggested humanistic strategy and confirms the third hypothesis of the study, that student teachers will show positive reactions toward such a supervisory strategy. In addition, observations by the researcher-supervisors, indicated that both experimental and control groups were able to use standards and sample indicators in their standards-based observation checklist. This was performed with increasing understanding and skill each time they used the standards-based observation checklist.

Recommendations

Major findings from the study indicate that the suggested supervisory anxiety reduction strategy using a humanistic approach was effective in: (1) reducing the experimental group’s level of anxiety, (2) improving the student teachers’ teaching performance, and that (3) the student teachers in the experimental group reacted positively to the supervisory strategy used. In addition, throughout the study, student teachers of both the experimental and

control groups were able to use standards and sample indicators in their observation checklist successfully.

The results of the study support the value of training supervisors to use alternative ways of supervision that can reduce student teachers’ negative anxiety. There can be training workshops for practice teaching supervisors that focus on the humanistic principles of education and how they can be applied to student teachers’ education and supervision. One of the main principles of humanistic education is expression of one’s feelings and ideas. It was evident in the results that student teachers needed training in reflecting orally on their teaching experiences. Results and the supervisor’s observations indicated that most student teachers were reluctant to speak about their own classroom performance, despite the encouragement of the supervisor. This hesitancy may be due to culture.

It is recommended that reflection forms a part of a college course in the teacher education program, so that student teachers understand the nature of reflection and do not avoid it because to be reflective entails being self critical, and that includes exposing one’s weaknesses to others. Training on reflection on teaching and its effect on teaching performance and other aspects of teacher preparation can also be a focus of future research. To increase the accuracy and truthfulness of the evaluation of student teaching performance, it is recommended to do more in developing and using standards-based checklists. Most importantly, because of its positive impact, the effect of the humanistic approach to teacher supervision is to be studied in pre-service and in-service teacher education.

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Appendix 1. Comparison between Experimental Subjects' Pre Testing and Post Testing Scores on Student Teacher Anxiety Scale (STAS)

Individual Wilcoxon signed rank tests on the pre- and post- scores of both the experimental and control group respondents the STAS.								
	Experimental Group				Control group			
Sub-jects	Post score	Pre score	Difference (d)	Signed rank of (d)	Post score	Pre score	Difference (d)	Signed ranks of (d)
1	35	86	-51	-1	57	55	2	(+)3.5
2	38	59	-21	-12	66	58	8	(+)7
3	39	74	-35	-3	52	71	-19	-13.5
4	47	66	-19	-14	54	56	-2	-3.5
5	48	72	-24	-9.5	60	69	-9	-8.5
6	54	64	-10	-16	64	62	2	(+)3.5
7	46	79	-33	-4	58	80	-22	-15
8	53	65	-12	-15	48	35	13	(+)11.5
9	42	64	-22	-11	54	67	-13	-11.5
10	46	66	-20	-13	47	45	-2	(+)3.5
11	61	92	-31	-6	60	79	-19	-13.5
12	38	65	-27	-8	53	63	-10	-10
13	48	72	-24	-9.5	65	70	-5	-6
14	45	75	-30	-7	57	76	-9	-8.5
15	45	82	-37	-2	68	67	1.00	(+)1
16	46	78	-32	-5				
Wilcoxon test statistic: W=136; Critical values: W _(16; 0.05) = 30 and W _(16; 0.01) = 20					Wilcoxon test statistic: W=60; Critical values: W _(15; 0.05) = 25 and W _(15; 0.01) = 16			

The Art of Storytelling for Foreign Language Teaching at the Primary Stage in Kuwait Schools

Wafaa S. Al-Yaseen

This paper explores the power of storytelling as an educational tool for fostering children's oral communication skills and cultural understanding of English as a Foreign Language (EFL) in Kuwaiti primary schools and reports on an informal study about implementing a story telling activity to demonstrate that power. Based on children's choice, the story "Little Red Riding Hood" was selected as the English version of the Arabic "Layla wal Theeb" and related to a class of eight and nine year old pupils to show how storytelling could be an effective teaching tool in the EFL classroom. Despite their weak English language skills, the children were able to identify the similarities and differences between the two versions of the story, revealing their understanding of the cultural differences. The storytelling activity enhanced interaction between the storyteller and the children and among the children.

Everyone loves stories. The events of our daily lives are told in stories. We all remember our childhood when we were told stories by our parents and grandparents. The story was their means of communicating cultural values, morals, advice and wisdom. Although the messages in the stories were indirect, they were understood. As children we were able to grow as language interlocutors to discuss, negotiate, and sustain conversation with our parents. In addition, we were able to transmit those messages to our peers. As adults, we still remember those stories and tell them to our children. Stories are shared gifts. Livo and Ritz (1986) refer to storytelling as "an art form". In formal education, such an art form as an educational tool helps children remain connected to their nature as young learners and indulge in meaningful interactions to grow into becoming confident and competent language users.

The school year of 1993-94 witnessed an important educational decision in the State of Kuwait. English to be taught as a foreign language (EFL) was introduced in all primary public schools. The goal behind the decision was to extend the cycle of learning a foreign language from eight to twelve years thus providing children with better opportunities to become fluent. In order to attract and

motivate children in learning English or any other a foreign language, it is imperative that a learning environment with appropriate strategies, accessible resources and meaningful activities, be provided. Educational research indicates that storytelling is one such activity that enhances language learning for young native speakers of English (Ellis, 1997; Kies et al., 1993; Peck, 1989; Strickland & Morrow, 1989) and also for ESL and EFL learners, especially children (Al-Jafar and Buzzelli, 2004; Hendrickson, 1992; Piper, 1986).

This paper describes how storytelling was used in an EFL classroom to promote and enhance children's oral communication skills and language fluency. The paper is divided into two sections. The first section discusses the rationale, based on the literature, for using storytelling as a teaching tool of EFL with children in the primary stage of schooling. In the second section, I present the findings from an informal study using storytelling with Kuwaiti children in the primary stage.

The Literature: Storytelling as a Tool for Developing Children's Oral Language

Many researchers who have studied the importance of storytelling for children's native language development have also

shown its application to foreign language teaching and learning (Dwyer, 1988; Strickland & Morrow, 1989; Mikkelsen, 1990; Healy, 1991; Ellam, 1992). Through storytelling, children engage in meaningful interactions which allow them to increase and sustain their language growth (Fillmore & Snow, 2000). Baker and Greene (1987) explain that “listening to stories introduces children to patterns of language and extends vocabulary” (p.22). The more children listen to stories, the more their oral and written language abilities increase (Peck, 1989). Freidberg (1994) found that storytelling augmented children’s oral fluency and verbal expressions. Ellis (1997) indicates that storytelling develops children’s listening skills for they learn how to differentiate between quiet listening and active listening by participating in the storytelling process. Baker and Greene (1987) stress that:

Storytelling encourages the art of listening. Children experience the whole of a piece of literature, uninterrupted by questions or discussion. If the stories they hear are worth listening to, they are eager to learn the key that unlocks the symbols (p.21).

Healy (1991) notes that if children feel responsible for getting meaning out of what they are learning, their comprehension, memory and thinking become more incisive and effective. According to Chalmers (1983), storytelling is the conjuring up of a picture through words. Kim (1999) asserts that storytelling is recognized as a key cognitive skill in the process of intellectual development, providing a conceptual framework for thinking. Friedberg (1994) points out that storytelling is an effective tool to elicit thoughts and this helps children to obtain a more ordered sense of the world. A child’s ability to think symbolically and metaphorically is augmented through storytelling (Maguire, 1985). According to

Livo and Ritz (1987), “Storytelling stimulates the imagination and mental visualization... Every listener will *see* images that are unique and special” (p. xi)

Storytelling for Foreign Language Learning

Storytelling is a very valuable tool in the foreign language classroom. According to Pesola (1991) storytelling is "one of the most powerful tools for surrounding the young learner with language"(p.340). Hendrickson (1992) writes:

Telling stories provides opportunities for students to speak the foreign language creatively, to integrate information and knowledge they learned from other sources, and become more self-confident in their ability to express themselves spontaneously (p. 7).

Storytelling is also a valuable resource and technique for teaching children about the target culture, its values and traditions, its people, and how the culture functions. Al-Jafar and Buzzelli (2004) examined the use of fairytales and storytelling with young children in a rural school in the United States of America to promote cultural understanding and appreciation of a Kuwaiti fairytale which was a version of Cinderella. The researchers concluded that the children’s stories reflected elements from both fairytale versions of Cinderella and showed the uniqueness of each child’s interpretation of the major themes. In Al-Yaseen’s (2007) study of EFL teachers’ opinions on using storytelling as a teaching tool in Kuwaiti primary schools, the teachers ranked the following reasons for using storytelling based on their perceived importance to foreign language learning:

1. It associates language learning with fun.
2. It develops listening comprehension.
3. It enriches pupils’ vocabulary.
4. It develops the four language skills.

5. It introduces language structure indirectly.
6. It teaches pupils about the FL culture.

In addition to the above advantages, storytelling contributes to: developing oral language and augmenting literacy, supporting the development of memory supra-structures through recalling the structure of stories, developing confidence in storytellers of all ages, and improving children's choice of books and stories. Given all of these advantages, language teachers must be encouraged to use storytelling for teaching EFL in all of the primary grades. Language teachers can use universal stories; however, selecting stories which children have heard in their mother tongue helps them in comprehending the stories when heard in English.

Teachers as Storytellers

Sawyer (1965) reminds us that "the art of storytelling lies within the storyteller, to be searched for, drawn out, and made to grow" (p.26). To achieve confidence with this art form a teacher needs to: gain experience in storytelling, choose stories that suit the children, know how to build the story's background, have a creative imagination and have the skill to evoke emotions. The teacher must don the role of an actor and jump into a story wholeheartedly using the whole self to make the story come alive.

As the teller looks right at the listeners, eyes meet and interactive communication exists between them. The storyteller gets immediate feedback on how the story is being received, and the listeners gain added messages in the story from the paralinguistic actions of the storyteller. Both storyteller and listener are actively involved (Livo and Ritz, 1987, p. xi).

When telling stories teachers need to: be good performers, use paralinguistic effects (voice, noise, body language, facial expressions and gestures) and choose suitable oral language to hold children's attention and even amuse them. Rhythm and repetition help children to remember the story and to hear and remember specific expressions in the target language, thus building vocabulary. The formulaic language that children learn from the told story is a good start for them as new EFL learners.

The following are some pointers for teachers who want to become good storytellers:

1. Select stories that suit the age of the children and preferably with a similar theme to a story which exists in the children's native language.
2. Prepare a careful reading of the story to be familiar with names of characters and main events. This will help to map the story in memory, reveal story structure and avoid false starts and linguistic mazes.
3. Use simple language that matches the linguistic level of the children, and relate the story in an appropriate tense. A story has its own time; the shape of the story language and tense help to bring the audience into the story time.
4. Use characters' voices; they add colour to the story. Their voices reveal their emotions and reactions and provide clues to their personalities and interests. Varying the voice when telling the events will add to the dramatization and hold attention.
5. Maintain eye contact with the children; doing so pulls the children into the story and helps the storyteller to read the audience and modify his/her telling accordingly.

6. Use nonverbal language generously; facial expressions, posture and gesture add richness to the story.

7. Tell stories in an attractive environment; a room decorated with pictures of story characters and main events will set the scene for children to live in the story's time. The use of masks, puppets and other objects will enhance comprehension and create a good listening mood.

8. Attend to children's seating to ensure that they are comfortable and within the teacher's sight zone.

9. Begin the story time in a relaxed and warm mood that invites the children to listen and have fun.

10. Attend to any disruptions; they could be signs of boredom, tiredness, or difficulty in understanding the story.

11. Encourage participation; even with limited or no language command the children can listen actively, repeating words and expressions. With a reasonable language command participation can take a form of guessing or predicting events.

12. End the story time with a short period of silence before moving on to discussion or other activities. This allows the children to enjoy the fantasy world of the story they have just heard. Before leaving, announce the next story time to build anticipation, and thank the children for being good listeners and participants.

13. Reflect on the story time to identify points for improving the next storytelling session.

The Storytelling Activity

In the State of Kuwait, English is taught as a foreign language in all stages of public schooling. In the classroom teaching interactions are initiated and controlled by

the language teacher. She asks the questions and the children provide mostly one-word answers. Classroom activities and teaching techniques used do not encourage communication. Therefore the children do not experience real communicative situations inside the language classroom in order to practice using the target language. Unfortunately, they move from one grade to the next with cumulative weaknesses in the English language. Consequently, many students depend on private tutoring and extra school tutorials. The Final Report of the Educational Indicators of the State of Kuwait of 1998 indicated that "Students' achievement in English is below average" (p.226). How can this be improved is the question that this study set out to address.

The Aim of the Study

The researcher wondered if storytelling could be used as a teaching tool to help foreign language learners in the primary stage learn and speak the target language. So an informal study was planned, to experiment with storytelling in the EFL classroom. This study took place in a girls' primary school (grades 1-5) in Mubarek Al Kabeer, one of the six educational districts in Kuwait. All the participating pupils were in the third grade and were eight to nine years old. The plan was to relate in English, a version of a story already familiar to Kuwaiti primary stage children in their mother tongue, Arabic. By exploring storytelling techniques of a similar theme in a foreign language, children can learn the importance of communicating through stories. In addition, listening to a story in English with a familiar theme in their mother tongue will help them understand the meaning of words and events of the story. The specific aims of the study were modest: to help children develop their oral language skills and fluency and increase their attention span and accuracy of recall. In addition, it was hoped that the children

would use the target language to express opinions and feelings.

Preparation

Prior to the storytelling activity, I visited several language classrooms to observe the nature of classroom interaction and the teaching/learning tools in use. All the classes that I observed followed the same pattern of language teaching. The teacher entered the class and asked the pupils to remain silent. Standing at the front of the class, she began with asking routine questions, and then presented the lesson. When required, the teacher played a cassette tape to present a dialogue or a song, relying heavily on Arabic to explain new vocabulary. The teacher dominated the lesson without pupil participation until the last quarter of the class period at which time there was a question and answer exercise to evaluate comprehension. The pupils were left with limited or non-communicative opportunities as most of the answers were one word.

Similarly, story time was teacher centred. The activity began with the teacher standing at the front of the class and the pupils in their seats. There were no supplementary cassette scripts for the stories; therefore, the teacher instructed the pupils to open their books and follow along word for word as she read. There were no accompanying visual aids to represent the characters or events of the story. After the first reading, usually done in a monotone, the teacher asked the pupils to read after her. Without any dialogue, the teacher asked questions to which the pupils made one-word responses. The teacher then evaluated comprehension of the story on this basis.

After these observations, I discussed with the teachers the storytelling activity. I asked them, why do you read the story instead of telling it? One teacher said, "We are not trained to tell the stories". Another said, "The teachers' guide does not explain

how to present the stories to children". Yet a third replied, "As a matter of fact, reading the stories in the class or assigning it to be read at home, and come to class ready for discussion, is all left to the teacher's preference, as the stories are not part of the units. They are included as supplementary readings at the end of the book". Another teacher indicated that "the supplementary stories are a short summary of the topic of each unit. Children do not find them interesting as they know in advance what will happen". After I explained to them the purpose of my project, I asked them for their opinion on using storytelling as a teaching tool. Their responses included: "storytelling would offer children better chances to learn English in a non-threatening situation"; "children can understand new words from the content and context in which they are used"; "it would enhance children's imagination and creativity".

Reflecting on the very little classroom interaction that I observed, I concluded that it follows what Mehan (1979) describes as the "IRE" pattern of speech act: "I" represents the initiation of instruction by the teacher; "R" represents pupils' responses; "E" is teacher's evaluation of pupils' responses. It is common in Kuwaiti language classrooms for the teacher to have more than twice the talking time as the pupils. From my perspective, such an interaction pattern does not encourage learning for there is too little language practice. In addition, such a pattern limits the freedom of older pupils to go beyond the expected answer to express opinions in their answers. During the story time, pupils did not have the opportunity to enter into and appreciate the imaginary world of the story's characters and events. The events of the stories were predictable as the stories represented the theme of the units. When I examined the stories in the textbook, I found that they were short reading passages intended for reading and not for relating in a story

form. Most of the passages were ten sentences in length and did not follow a story structure with a scene setting the background and main events, a problem, a climax, a resolution, and a conclusion.

Telling the Story

I made four visits to the selected classroom for observations which helped in establishing rapport with the pupils. On the fifth visit, I took some colourful storybooks, masks, puppets, and pictures representing the characters in some of the stories. I displayed these items on the unoccupied desks around me thus creating a small storybook corner. Soon the pupils approached me full of curiosity and excitement; this I found very encouraging. They showed interest in my storybook corner and were keen and curious to look at the books. Some of them were spelling out the words while others followed the pictures to understand the theme of the stories. For the storytelling activity, the pupils had a choice of two stories, "Little Red Riding Hood" or "The Three Billy Goats". The majority showed interest in "Little Red Riding Hood" which has an equivalent in Arabic, "Layla wel Theeb" (Layla and the Wolf).

I invited the language teachers to observe the storytelling activity for evaluation purposes. They could observe its effect on individual children and on the class as whole. The classroom was re-arranged in a U-shape. A rug was put in the middle with small cushions for the pupils to sit on. I sat in the middle surrounded by the pupils. At the beginning of the storytelling, I showed large pictures of the characters (Little Red Riding Hood, the mother, the grandmother, the wolf and the huntsman) plus the main events of the story. The purpose was to familiarize the pupils with the names of the characters and for pronunciation practice as well. In addition, some real objects (a red hood, the basket, flowers, medicine bottle, gun, scissors, nightcap, glasses and stones) were

displayed for the pupils to learn their names. The purpose of naming the objects is to build pupils' vocabulary through recognition. Bellon (1975) reminds us that "words and sentences are the verbal symbols the child uses to represent experience" (p.151). Flash cards with large print of the characters' names and the objects of the story were posted on the white board. Pictures of the characters and objects were posted as well. This pre-telling activity set the scene for telling the story and provided the pupils with the necessary clues for better comprehension. The target outcome was to increase vocabulary, listening skill, recollection of details, participation and self confidence. The pupils were asked to repeat some of the key words on the flash cards to encourage oral communication.

Pupils were reminded to listen carefully and quietly. As the narration began, I maintained eye contact with the pupils to gauge their interest and engagement. The voices of the characters came through by dramatic impersonation. Each character was given an appropriate voice. Telling the story was associated with joy, and enthusiasm and an element of excitement. After telling the story, I asked the pupils two questions, What are the names of the characters of the story? What are the names of the real objects mentioned in the story? To make the task easy for them, I asked them to point to the pictures and flash cards posted on the board. As expected, some of the pupils struggled with the pronunciation of some of the words. However, they attempted to participate, inspired by the rest of their classmates. The first storytelling period lasted for two consecutive class periods, a total of one hour and half hours. The pupils asked me to stay longer and showed great interest in playing games. They showed excitement and interest throughout the storytelling period and wanted it to continue.

The second storytelling period took place three days later with the same class using the same classroom arrangement. The vocabulary and main events of the story were revisited. The pupils were able to recall some of the words and the main events. Although their English language was not perfect, they participated. I was encouraged by the pupils' retention of vocabulary as one proof of the effectiveness of storytelling as a teaching tool. When asked questions that compared the English and Arabic versions of the story, their responses indicated that they understood enough in English to recognize there were slight differences between the two stories. They were able to name the pictures of objects and characters in the story and relate them to events.

Reflection

Based on my experience and observations of this storytelling activity I reached the following conclusions:

- Pupils listened eagerly to the story.
- The learning process was associated with fun, joy, and a feeling of success.
- The feeling of success and the non-threatening learning atmosphere helped in lowering pupils' anxiety level and increased their self confidence in using the language.
- The storytelling activity helped children to recall some of the vocabulary without looking at the pictures. It was very encouraging to show them more pictures and to hear them name them.
- Pupils were involved in the learning process. Although, some of their sentences were grammatically incorrect, they were able to express themselves and give their opinions, even if they relied on Arabic whenever they lacked the right word in English.
- During the storytelling activity, I observed a variety of behaviours and facial expressions which indicated that

the children were engrossed in listening. The children were quiet and maintained eye contact with the storyteller (researcher).

- The children forgot about their poor command of the English language and became involved in the post storytelling activities. This draws teachers' attention to the importance of storytelling in increasing children's self confidence.

Evaluation

In a post-activity conference with the language teachers, they reacted to what they had observed, indicating that they noticed improvement in pupils' listening and their increased attention span. They had to reconsider their assessment of pupils' learning potential as they saw the skills that they used in comparing the two stories (Arabic and English). They said that they enjoyed the storytelling activity and realized it could be fun teaching a foreign language. Simply put, teachers stated that, from observing this storytelling activity, they had gained new ideas for teaching and approaching their pupils.

Conclusion

Based on the teachers' comments, pupils' responses to questions during both storytelling sessions and my observations described above, it is concluded that the aims of this modest project were achieved. If the outcome of Kuwaiti's decision (1993/94) is to have their children become fluent English speakers, then language learning must be a focus of educators and teachers must be trained in a variety of language teaching techniques. One technique that has possibilities of being effective is storytelling which provides children with opportunities to learn language by using language. It allows children to use their language in a joyful, less structured, and non-threatening learning environment. Consequently, their oral language fluency, accuracy, recall of

information, and imagination will be enhanced. The development of their oral language will have a positive influence on their writing skills. In addition, they will learn that people from other cultures may share similar ideas but differ in the ways of expressing them. This allows them to appreciate people from different cultures.

It is recommended to repeat this storytelling activity in several EFL primary classrooms in Kuwait and observe children's skills in using the target language, listening, oral language fluency, comfort level and confidence with the

language. Children use words and sentences to represent their experiences, so it is important to create opportunities in the classroom for them to have experiences in using the language; experiences through which their imagination will blossom and they will be motivated to use the foreign language as a pathway to the world around them. It is also recommended that the repeated storytelling activities be monitored systematically and the findings used to refine this project as a professional development activity for EFL teachers in Kuwaiti's primary schools.

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**The Use of Computers by Staff Members in the English Department at
Kuwait University**

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and
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This study examines the use of modern technology in a college English language classroom by documenting staff members' use of the computer and the Internet, their attitude towards usage and support received to use. A sample of staff members at the College of Basic Education, Kuwait University used an originally constructed questionnaire to provide information about their use of the computer and the Internet in their teaching. Results showed a low level of usage and that access was a major barrier to usage.

Computer literacy has become a must in our global village for all people and particularly for those in education. Emerging technologies are quickly becoming part of daily learning and teaching endeavours in academia. As a result of increased access to certain “hi-tech” tools, educators must learn to integrate these tools in educational settings (Ozkan & Gunay, 2004, Amin, 2005). Ely (1993) states that implementing the Internet in all kinds of curricula, especially in teaching reading and writing has many advantages and therefore should be an ultimate goal for all educators. For the benefits of Internet activities for teaching and learning to be realized, educators have to become proficient with the technology and view it as non-threatening. For example, in teaching a foreign language, using the Web to integrate language and culture is a distinct advantage (Siekman, 1998). Al-Sayid (1999) insists that the use of technology in teachers' preparation programs provides prospective teachers with the necessary experience and skills to help them become more adept in “hi-tech” environments.

This study investigates the use of computers by staff members in the English Department in the College of Basic Education, a four year college affiliated with the Public Authority for Applied Education & Training (PAAET) in Kuwait. The study focuses on five main

issues: the level of staff members' computer training, staff members' attitudes towards using computers in the classroom, their beliefs about the computer's potential for providing optimal environment for language learning, degree of support for staff members in their use of computers as well difficulties involved in gaining access to computers.

Literature Review

Cakiroglu et al. (2001) investigated elementary and secondary teachers' perspectives around computer use in schools in Turkey. Data that were collected by a questionnaire and distributed to 202 teachers indicated that a considerable number of them (41%) had never used a computer although most of them indicated that they had positive beliefs about the influence of using the computer in instruction. In identifying obstacles to computer use in instruction, teachers reported that the lack of computers, unsuitable curriculum, and the lack of teachers' knowledge about computers were the most important problems that they faced in their schools.

Reichstetter (2000) investigated computer use by middle school teachers using a survey conducted by the Wake County Public School System (WCPCC). The survey compared middle school teachers' use of computers to specific demographics: subjects taught, favoured

instructional purposes, age, years of teaching experience and gender. The analysis showed that middle school teachers used computers more as their level of training increased, especially when the training addressed their specific teaching subjects, and that younger teachers were more likely to use computers.

Rowand (2000) investigated teacher use of computers and the Internet in public schools based on a survey by the National Center for Education Statistics (NCES). The survey found that, while 99% of the teachers surveyed had access to computers or the Internet, only 39% of them used either to create instructional materials, and 34% reported using computers for administrative record keeping. More of the newer teachers (66%) reported using computers or the Internet for instruction during class time and teachers with professional development in the use of computers and the Internet over the last three years were more likely to assign students various types of computer and Internet based work.

In Lecher's (2004) case study of "technophobes" teaching with technology, there was an art professor who was comfortable with only basic email and Internet usage, but did not have a lot of experience with other software and hardware tools. By introducing this professor to technology in a simple way, through discussion, providing her with ample training and practice, and providing her with adequate and timely support, she became a great success at using the computer in her teaching. From his study of 350 male and female art teachers in middle schools in Egypt, Amin (2005) concluded that his subjects had very little awareness of the importance of technology as a teaching aid in classrooms and that new teachers showed better awareness than older teachers, of the importance of technology.

From his study on the use of the Internet by 299 staff members at two Saudi-Arabia universities, Al-lahibi (2004) found that the use of the Internet by staff members was still in its early stages. Just about half (51%) of the subjects claimed to make very little use of the Internet, while 25% claimed not to use the Internet at all. Al-hadlaq (2000-2001) investigated the use of computers by 913 Science teachers in the Gulf States. Of these 39.5% claimed not to use the computer at all while 37.8% claimed that they sometimes used the computer. Only 22.7 % used the computer on a regular basis. As to whether the subjects had had any computer training sessions, Al-hadlaq stated that 79.3% of his subjects claimed that they never had any training on the computer; 67.8% had not "surfing" the Internet and 58.6 believed that the use of computers in the classroom was highly beneficial in the sense that it could change the way the subject matter is presented and new teaching methods could also be implemented.

Research Questions

This study attempted to answer the following research questions:

1. What is the level of staff members' computer training?
2. What are staff members' attitudes towards using computers in the classroom?
3. What are staff members' beliefs about the computer's potential for providing an optimal environment for language learning?
4. What is the degree of support for staff members' in their use of computer?
5. What are the difficulties involved in gaining access to computers?

Methodology

Participants

All 45 staff members in the Department of English at the PAAET in the first term of the academic year 2006-2007, comprised the population of the study. In the group

there were more females (55.6%) than males (44.4%); the largest number was in the 40-49 age group (53.3%) and all had a graduate degree. These characteristics of the group as well as their years of service are detailed in Table 1.

Table 1. Characteristics of the Participants

Demographic information		Frequency	Percentage
Gender	Male	20	44.4
	Female	25	55.6
Age	20-29	1	2.2
	30-39	7	15.6
	40-49	24	53.3
	50-59	8	17.8
	60+	5	11.1
Degree	PhD	19	42.2
	MA	26	57.8
Years of Service	1-10	17	37.8
	11-20	15	33.3
	20+	13	28.9

Information about the participants was solicited on a questionnaire (in Arabic).. In addition to the descriptors of age, gender, degree and years of service in the Language department of the PAAET, participants provided, in their responses, information about their frequency of use of the computer, did PAAET provide them with computers, what computer programs they used, and for what purposes they used the computer. Frequency analysis showed that:

- 93.3 %of the respondents claimed to have some knowledge as to how to use the computer, while 6.7% claimed that they did not know how to use the computer.
- 75% of staff members claimed that PAAET had not provided them with a computer.
- The programs that the participants said they know how to use best were Word (91.1%), Internet (88.9%), and E-mail (82.2%). They claimed to know least how to use Excel (35.6%), SPPS (17.8%), and PowerPoint (28.9%).

- The majority of the staff members indicated that they use the computer to prepare their examinations (91.1%), prepares handouts (77.8%), and record students' grades (44.4%). Very few said that they used the computer for in-class or out-of-class presentation (26.7%) or for preparing transparencies (24.4%).

Instrumentation

The questionnaire was developed and administered in Arabic (see translated version in the Appendix). It had two kinds of items: items that required a simple frequency count as reported above and 38 Likert type items. These were intended to solicit a range of responses to the research questions. There were eight items measuring the participants' attitudes towards using computers in the classroom (Research question 2); 12 items measuring their beliefs about the computer's potential for providing optimal environment for language learning (Research question 3); 10 items measuring the degree of support that they received in their use of computers

(Research question 4); and eight items measuring the difficulties involved in gaining access to computers (Research question 5). Cronbach's alpha test (Creswell, 2003) was used to determine reliability of the 38 Likert type items and the questionnaire as a whole.

The reliability estimate for teachers' attitudes was 0.906; for teachers' beliefs about the computer's potential for providing optimal environment for language learning was 0.777. For the degree of support for teachers in their use of computers, reliability estimate was 0.875 and for the difficulties involved in gaining access to computers, 0.551. The reliability estimate for all items in general was 0.823. The results indicated that the scale items are marginally reliable.

Analysis and Results

The items of the questionnaire were grouped according to the research questions and analysed according to the background factors of gender, degree, age and years of service. The t-test and ANOVA were the statistical strategies used to analyse the data and determine if there were any significant differences between the different groups of participants in their responses to the research questions.

Gender. The results showed that, when divided according to gender, there were no significant differences in either males' or females' responses to any of the questions: positive attitudes towards using computers in the classroom (Mean: male 4.7, female 5.06); positive beliefs about computer's

potential for providing an optimal environment for language learning (Mean: male 4.87, female 5.06). Both groups agreed that there was a lack of support from the PAAET around their use of computers (Mean: male 3.88, female 3.89), and that they face a number of difficulties in gaining access to computers (Mean: male 4.14, female 4.27). Difficulties mainly arise from the Kuwaiti bureaucracy system followed in the private sector in general. To apply for a computer set, a staff member has to go through much paper work; the process sometimes takes more than two years. Additionally, lack of computer labs to for use by staff members in the college poses another major problem.

Degree. Participants divided themselves into two groups with respect to educational level, those with a M.A. and those with a Ph.D. There was no significant difference between the two groups with respect to their positive attitudes towards using computers in the classroom or their positive beliefs about the computer's potential for providing an optimal environment for language learning. Both MA and PhD holders agreed on the lack of support they received from the PAAET in their use of computers. They also agreed that they faced a number of difficulties in gaining access to computers. There was a significant difference as to the difficulties involved in gaining access to computers (Table 2). MA holders claimed to have more difficulties than PhD holders in gaining access (0.043).

Table 2. Difference between MA and PhD Groups Regarding Difficulties in Gaining Access to Computers

	Degree	Mean	Std. Deviation	t	df	Sig.
Difficulties in gaining access	PhD	3.92	.55	2.33	43	0.025*
	MA	4.42	.82			
All items	PhD	4.34	.30	2.08	43	0.043*
	MA	4.64	.57			

* $p < .0$

Age. An ANOVA test (Creswell, 2003) showed that there was no significant difference among the five age groups in their responses to the research questions (Table 1).

Years of service. An ANOVA test for participants' years of service and their responses to attitudes, beliefs, degree of support, difficulties in gaining access showed no significant difference among the three age groups (Table 1).

T-tests and ANOVAs used to check for differences in responses to the five clusters of items according to age, degree, gender and years of teaching experience, showed much similarity among the groups, with differences of significance only regarding degree of support for teachers in their use of computers and the difficulties involved in gaining access to computers.

Discussion

The above analysis suggests that computer literacy for instructors at the PAAET has to be adopted as an educational goal (Ozkan & Gunay, 2004, Amin, 2005) and staff and students be encouraged to use computer technology in their teaching. The participants showed positive attitudes towards using computers in the classroom; as well, they hold positive beliefs about the computer's potential for providing an optimal environment for language learning. Most of the staff members agreed on the lack of support they received from the PAAET around computer usage. Similarly, most of them claimed to face difficulties in gaining access to computers.

The findings of this study accord with Cakiroglu et al.'s (2001) conclusions that some staff members do not use the computer despite their expressed positive attitudes towards computer use in instruction. Likewise the conclusions of this study around the difficulties involved in gaining access to computers are similar

to those by Cakiroglu et al. (2001). Our participants claimed that the lack of computers and the lack of knowledge about computers were the most important problems they faced in adopting the technology in their work.

These findings are also supported by Rowand's (2000) study in which staff members claimed to know how to use the Internet. Where Rowand's findings showed that 66% of her participants used the computer for instruction during class time, only 26.7% of this study's participants claimed to do so.

In response to open-ended questions, most of the staff members who claimed to use only basic email and Internet declared that they are "technophobes". Their ideas conform to those found in Lecher's (2004) study., the researchers observed that staff members between the ages of 40 and 50 and who have basic knowledge in using Word refrained from enrolling in any computer training programs, perhaps due to being "technophobes". Access to training is available. The professional development centre at the PAAET exerts much effort to educate staff members in using the computer. The centre offers training sessions on all computer e open to all staff members. In order to promote the use of computers in teaching, the institution has mandated the ICDL (International Computer Driving License) certificate as a requirement for faculty promotion.

Conclusion

From the findings of this study as well as from our observations as members of the College of Education, the researchers believe that staff members in the English Department in the PAAET need some professional development in order to upgrade their skills and confidence in computer usage and with specific computer programs, especially, SPSS, PowerPoint, and Excel. They need to be

encouraged to learn how to integrate “hi-tech” tools into educational settings (Ozkan & Gunay, 2004, Amin, 2005). They need to make such integration a goal

and commit to participate in the training sessions that the PAAET provides. PAAET should work to overcome problems and difficulties of access.

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**Effective Professional Development as Perceived by In-Service Teachers at the
University of Kuwait**

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The main purpose of this study was to investigate the perceptions of in-service teachers with regard to effective professional development framed within the four basic principles of Sustainable Human Development: equity, productivity, sustainability and empowerment. A 40-item questionnaire was constructed by the authors and distributed to a random sample of 180 in-service teachers involved in Post Graduate and Continuing Education Programs in the College of Education at the University of Kuwait. The results of this study indicated that the in-service programs contribute to the teachers' perception of the concepts of sustainability and productivity as aspects of effective professional development.

Over the years the calls for a commitment to teacher learning have increased from a confluence of forces. The standards movement is one such force. Calls for higher standards for teachers inevitably erupted alongside calls for higher achievement standards for students. If students needed their education provided differently, and more of it, in order to meet new assessment measures and standards, it followed that teachers would need something new as well, and more of it. More professional development for teachers was plugged as a way to reform tht would improve student performance.

Another force is the professionalization of teachers. Groups such as the National Board for Professional Teaching Standards (1989) and the National Council for Accreditation of Teacher Education (2002) have authored mission statements and subsequent standards for professional teachers and teaching. So more and more, teachers require professional development to remain current and keep their teaching license. Opportunities are provided for them and many participate in continuing education activities. Sometimes, they take further professional development courses in training institutes at the university. They may participate in mandatory part-day or day-long workshops sponsored by

their school or by supervisory and/or administrative organizations. They may enroll in advanced diploma and masters' degree courses, take summer and/or weekend workshops or join professional organizations. Some learning, no doubt, goes on in the interstices of the workday, in conversation with colleagues, passing glimpses of another teacher's classroom on the way to the photocopying machine, tips exchanged in the coffee lounge, not to mention the daily experience of the classroom itself. Every school experience, whether it be in elementary or middle or high school, in a college or university, has the potential for teaching teachers lessons about what school is, how people learn, what teachers do and how to do "it" better.

While workshop opportunities have been criticized for being decontextualized and contrived, Lord (1994) notes that these opportunities for teacher learning are happenstance, random and unpredictable. In sum, teacher learning has traditionally been a patchwork of opportunities – formal and informal, mandatory and voluntary, serendipitous and planned – stitched together into a fragmented and incoherent curriculum. Researchers of contemporary professional development (Wilson & Berne, 1999) indicate that educators know little about what teachers

learn across the multiple opportunities. Teacher lore suggests that traditional in-service programs consist of outside experts with little knowledge of local conditions who present irrelevant, sometimes amusing, often boring pre-packaged information (Corcoran, 1995). Hence, we have little sense of what exactly it is that teachers learn and by what mechanisms that learning takes place. What knowledge do teachers acquire across the experiences? How does that knowledge improve their practice? To what extent do professional development programs meet the desired goals of the training institution? Do these programs help to enhance the work productivity of the participants, and to empower them with new understandings and authorities? What can be said about the programs' role in maintaining the values of cooperation and equity among in-service teachers? How do teachers view their professional opportunities and experiences?

Given these questions about teachers' professional development programs and the impact, at least in the Kuwaiti education and societal systems, this paper investigated how in-service teachers perceive the effectiveness of the professional development programs offered by and at the College of Education at the University of Kuwait. Notwithstanding the limitation of this study, we believe that the results will contribute to the understanding of some issues concerning the professional development of teachers in Kuwait at this time.

Conceptual Framework

Principles for designing professional development experiences for teachers abound in the teacher education literature. (Garet, et al, 2001; Guskey, 2000). Little (1988) nominated the following features of effective staff development:

1. It ensures collaboration adequate to produce shared understanding, shared investment, thoughtful development, and a fair, rigorous test of selected ideas;
2. It requires collective participation in training and implementation;
3. It is focused on crucial problems of curriculum and instruction;
4. It is conducted long enough to ensure progressive gains in knowledge, skills, and confidence; and
5. It is congruent with and contributes to professional habits and norms of collegiality and experimentation.

Abdal-Haqq (1995) defines some important characteristics of effective professional development, claiming that it:

1. Is ongoing;
2. Includes opportunities for individual reflection and group inquiry into practice;
3. Provides opportunities for teachers to interact with peers;
4. Focuses on student learning;
5. Encourages and supports school-based and teacher initiatives;
6. Is rooted in knowledge base for teaching;
7. Incorporates constructivist approaches to teaching and learning;
8. Recognizes teachers as professionals and adult learners.

Contemporary scholars (Adey, 2004; Ingvarson, Meiers, & Beavis, 2004) believe that teachers' prior experiences, knowledge and beliefs factor into teacher learning, and that the context in which

teachers work is believed to affect what they can do. Time, reflection and follow-up are also thought to be important. Ball (1996) contends that “The most effective professional development model is thought to involve follow-up activities, usually in the form of long-term support, coaching in teachers’ classrooms or ongoing interactions with colleagues” (pp. 501-502),

Other prevalent beliefs about the effectiveness of teachers’ professional development programs and activities include the idea that teacher educators and staff developers should model the approaches that they are promoting, and that teachers need to own and control their professional development. Putnam and Borko (1997) echo the main beliefs embraced by educators with regard to effective professional development in the following principles:

1. Teachers should be treated as active learners who construct their understanding.
2. Teachers should be empowered and treated as professionals.
3. Teacher education must be situated in classroom practice.
4. Teacher educators should treat teachers as they expect teachers to treat students.

Although these principles and beliefs sound reasonable, we still know little about what teachers learn in traditional staff development and in-service activities, and what changes professional development programs bring about in teachers’ knowledge, practice, dispositions and ways of thinking about teaching and learning.

A paradigm shift in development thinking in recent years has favoured the notion that professional development programs should be consistent with the basic principles of

sustainable human development. This stems from the belief that development progress both nationally and internationally must be people centred, equitably distributed and environmentally and socially sustainable. Sustainable human development is not limited to the generation of growth. Rather, it “equitably redistributes the returns of the growth; it regenerates environment rather than destroys it; it empowers people rather than marginalizes them; it actively enhances peoples’ alternatives and widens their opportunities and qualifies them to participate in the making of decisions that directly affect their lives” (UNDP, 1998, p.22). Based upon the available literature of the United Nations Development Programs (UNDP), it becomes possible to identify four basic components of the concept of *sustainable human development*: equity, productivity, sustainability and empowerment.

Equity is the focal concept in sustainable human development, and means a state of fair and equal opportunities for all. The idea of equity comprises total removal of social, legal and institutional obstacles that block access of specific groups to decision-making structures and processes. In the context of teachers’ professional development programs, equity means giving equal opportunities for all teachers to access and participate in these programs based on fair and sound criteria.

Productivity is related to continuous improvement in output. This concept stresses close association between economic growth, equity and justice. In teachers’ professional development programs this means strengthening the relationship between knowledge and the work of teaching students.

Sustainability calls for reformation of present consumption patterns, correction of attendant disparities in the distribution of wealth and the allocation of productive

assets in a more equitable manner. For teachers, this concept translates into continually striving for creativity in academic and work spheres, for such creativity helps to provide new and renewable resources to enable and support the educational system.

Empowerment endows people as makers of development and not only as beneficiaries. In the professional development sense, this would mean that there are many responsibilities that teachers should assume in order to guide their own personal and professional growth. They are participants, not observers; they are not only learners, they are equal partners and decision-makers as well.

Research Problem

The basic function of the University of Kuwait as an important institution of educational and social development is to build students' personality and thought, and to establish a profound base and an active environment for student learning. In such an environment, teachers are encouraged to hold consistent and reasonable beliefs about professional development, and to share these beliefs with their peers and students, thus promoting high standards of teaching and learning. The main objectives of Professional Development Programs in the College of Education are to provide regular year-long in-service training for school teachers, administrators, and other education personnel through enriching their skills and professional knowledge, and enabling them to keep current with new thinking in the field of education and in their more specific subject fields. The College also participates in pre-service education of teachers and workers in the education field in collaboration with the Ministry of Education and other educational and social institutions in the country. Since what teachers think about professional development has an impact on

their work and lives, the study was aimed at examining in-service teachers' perceptions about effective professional development programs in the light of the four basic components of sustainable professional development mentioned above: equity, productivity, sustainability, and empowerment.

Method of the study

Sample: A random sample of 180 in-service teachers participated in this study. They were all enrolled in Post Graduate and Continuing Education courses at the College of Education at the University of Kuwait. There were 64 men and 116 women; otherwise they were homogenous with respect to academic, cultural, and ethnic backgrounds. The sample represented 23.4 % of all students enrolled in professional development programs at the College of Education.

Instrument. For the purpose of this study, the author constructed the Effective Professional Development Questionnaire containing 40 items (see Appendix) and based on the four components of sustainable human development (UNDP, 1998): equity, productivity, sustainability and empowerment. These components seemed to be reflected in the basic principles of effective professional development, discussed in the literature (Abdal-Haqq, 1995; Adey, 2004; Putnam & Borko, 1997; Wilson & Berne, 1999). Furthermore, the State of Kuwait has been working hard to promote and implement human development strategies and programs in some important aspects of people's lives: Education, Health, Employment, Social Care, Environment, etc. As a result of these efforts, Kuwait is now among those Arab countries that concur with the basic principles of the United Nations Human Development program and seek to provide the requirements and conditions for implementing the principles.

The questionnaire contains 40 items divided into four sub-scales, with 10 items in each scale (See Table 1). The intent in developing the questionnaire was that each subscale should have items that tap the study participants' perceptions of effective professional development according to the four principles of sustainable development:

1. *Equity*: the extent to which the professional development programs at the College of Education give equal opportunities to students to participate in staff development activities, and encourage fair competition in achievement and work. The participants' perception of this dimension is measured by Items 1, 7, 8, 17, 22, 28, 29, 32, 33 and 40.
2. *Productivity*: The ability of the professional development programs to promote work productivity by aligning the content of the staff development activities with the job requirements, and cultivating the culture of discipline,

responsibility, and loyalty in the working place. This dimension is represented by the following items: 2, 5, 10, 14, 16, 20, 26, 30, 37 and 39.

3. *Sustainability*: If a professional development program promotes sustainability, we would expect its participants to strive, in a continuing and enduring manner, to acquire self-learning skills in order to achieve high level of competency in study and work, and to solve problems in a creative fashion. The following items represent this dimension: 4, 6, 9, 11, 13, 15, 23, 34, 35 and 38.

4. *Empowerment*: The professional development program is labeled as an empowering program if its participants are encouraged to participate in the decision-making process, to demonstrate their abilities and skills, to discover new knowledge for themselves, and to take part in the cultural and social life of the community and wider society. The following items measure this dimension: 3, 12, 18, 19, 21, 24, 25, 27, 31, and 36.

Table 1. Item Distribution among the Four Subscales.

Subscale	Mean	Item No.
Equity	21.16	1, 7, 8, 17, 22, 28, 29, 32, 33, 40
Productivity	21.20	2, 5, 10, 14, 16, 20, 26, 30, 37, 39
Sustainability	21.74	4, 6, 9, 11, 13, 15, 23, 34, 35, 38
Empowerment	21.44	3, 12, 18, 19, 21, 24, 25, 27, 31, 36
Whole Scale (40 items)	85.55	

Participants were asked to rate each item on a 3-point scale – high, moderate, low – to indicate the extent to which they perceived that they benefited from the professional development programs offered by the College of Education.

The Professional Development Questionnaire (see Appendix) was validated using factor-analytic techniques. Factor-based scales made up of items with structure coefficients of at least .40 on a single factor (Gorsuch,

1997) are considered “good” and should produce scores with strong reliability. The alpha of the scale as a whole was adequate (alpha = .98). Reliability coefficients measuring internal consistency for the scores on the scale dimensions ranged from .90 for scores on the Productivity sub-scale to .93 for the Sustainability sub-scale.

Findings

High and moderate scores were added to decide on the adequacy of help that

teachers receive from the in-service programs towards their development in the areas identified by the questionnaire items.

Regarding the *Equity* aspect of effective professional development (M= 21.16), the majority of the group of in-service teachers (77.7%) realized that every individual has the right to pursue their career development (Item 40). They were helped in learning how to compete honestly with colleagues at work ((Item 17 - 75.0%). The least contribution of professional development programs lie in their inability to help the participants to appreciate collaboration with one's colleagues at work (60.5%) or to match their abilities and ambitions (67.2%).

In respect of the *Productivity* aspect of effective professional development (M = 21.20), most teachers (75.6%) agreed that they gained new knowledge in their fields of specialization, and understood the importance of professional training for increasing their cognitive and work competencies (74.4%). However, fewer participants (64.5%) think that the programs increased their ability to combine study with work (Item 26), or helped them in drawing new plans for improving one's professional career (66.1%). These lower percentages still represent a majority of the sample.

Responses to items showed that this group of in-service teachers believe that the College of Education at the University of Kuwait pays adequate attention to the *Sustainability* aspect of their professional development (M=21.74). This is demonstrated by a high percentage of students who considered that the programs encourage them to be diligent and creative at work (Item 38 -76.1%); gave them the opportunity for continuing acquisition of knowledge in the field of specialization (Item 2 - 65.6%); and helped them become more capable to use knowledge in [their] different fields (Item 28 – 73.3%). The

least contribution of the program to the teachers' development in the area of Sustainability is seen in their low response to Item 13 about collective decision making (33.3%) and Item 34 about acquisition of critical judgment (35%).

The *Empowerment* aspect of the professional development programs was clearly evident (M = 21.44). The in-service teachers indicated that the programs contributed to their ability to express appreciation of the values of professional and moral commitment (Item 36 - 79.4%); and to assume responsibility in study and work (Item 24 - 76.7%). A smaller percentage of teachers (60.5%), but still a majority of the sample, believe that the programs allowed them to participate in cultural and social activities (Item 31) or to make sense of critical problems existing in the Kuwaiti society (Item 19 –63.9%).

The results of this study indicate that in-service teachers believe that their continuing education programs contribute to the sustainability and productivity aspects of their professional development; in that respect the programs are seen as effective. Most of the participants recognize that the programs can be more effective if adequate attention is paid to the human aspect of professional development; for example, more attention should be given to how the programs assist them in matching their ambitions and their abilities and in participating in the cultural and social life of the society.

This study showed that teachers believe there is a positive impact of the professional development programs on their values, thoughts and beliefs. However, other studies (Al-Hashem, Karam, & Al-Musawi, 2002; Al-Musawi, 2003; Guloom, 2001) have shown the decreasing influence of educational institutions on students' values and orientations.

We suggest that there are several factors that contributed to these findings. Colleges of Education in the Arab Gulf States have been mainly occupied with building themselves as strong educational institutions whose first priority was to deliver knowledge and skills necessary for the students to perform well in specific professions and careers required by the society. The tangible accomplishments of the Gulf institutions of higher education in this area, however, were at the expense of the emotional, social and moral aspects of education. A striking feature of the courses taught at the Colleges of Education in Kuwait is their strong emphasis on the curriculum and methods of subject matter teaching. College teachers do not usually devote much effort to re-orient the content of the courses in ways that would enliven conversations and activities intended to re-shape the students' thoughts and beliefs about such societal

values as: volunteering, democracy, citizenship and loyalty (Al-Mutawa & Al-Furaih, 2001). The direction of such re-shaping is influenced by the deep socioeconomic changes and the technological advances that have taken place and are continuing in the modern Arab Gulf States. Such changes have inspired observable changes in the system of values in the Gulf societies that now prioritize modern values over traditional and self-transcendent values.

If teachers are to make judgments about the different sets of values and choose between them, they need time and support during their studies at university to do so. They need time and support in exploring such values as equity, productivity, sustainability and empowerment among others, that are challenges for modern societies. Such values are embedded in traditional values of the society.

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Appendix: Item Frequencies on Effective Professional Development Questionnaire

	Frequency (%)		
	Level of Program Contribution		
Items	High	Moderate	Low
I benefited from the Program in that I have:			
1- Realized the human aspect of professional development	13.3	44.4	42.3
2- Gained new knowledge in my field of specialization	20.6	45.0	34.4
3- Had the chance to demonstrate my abilities and skills	22.2	46.7	31.1
4- Mastered the skills necessary for continuous self-learning	26.7	41.7	36.6
5- Contributed to increased work productivity and discipline	24.4	45.6	30.0
6- Started to think in an independent and confident manner	26.7	43.9	29.4
7- Been convinced that all people should be treated equally	20.0	47.2	32.8
8- Appreciated collaboration with my colleagues	18.3	52.2	39.5
9- Acquired a desire for more reading and knowing	23.9	51.7	25.4
10- Understood how to use knowledge at work effectively	24.4	44.4	31.2
11- Raised my ambitions to improve work conditions	30.6	41.7	27.7
12- Learned how to discover new knowledge for myself	23.9	43.9	32.2
13- Shared decision-making with my colleagues	17.8	48.9	33.3
14- Read thoughtfully the available literature in my field	13.9	48.3	37.8
15- Striven hardily for high level of achievements at work	30.6	41.7	28.7
16- Dealt with the course grade as a motive for further learning	21.7	52.2	26.1
17- Learned how to compete honestly with colleagues at work	28.3	46.7	25.0
18- Realized the cultural and social aspects of the Program	21.7	47.2	31.1
19- Made sense of some critical problems of the society	17.8	46.1	36.1
20- Got the skills for improving my performance in study and work	24.4	45.6	30.0
21- Practiced the values of citizenship and loyalty at work	23.3	43.3	33.4
22- Realized the need to provide a job for every one in society	22.2	46.1	31.7
23- Obtained the ability to deal with others in a flexible manner	26.7	50.0	23.3
24- Assumed the burden of responsibility in study and work	30.0	46.7	23.3
25- Got acquainted with issues and problems of education	22.8	46.1	31.1
26- Acquired the ability to combine study with work	17.8	46.7	35.5
27- Been able to express myself openly	25.0	50.6	24.4
28- Been more capable to use knowledge in my field	23.3	50.0	26.7

Questionnaire continue	Frequency (%)		
	Level of Program Contribution		
Items	High	Items	High
I benefited from the Program in that I have:			
29- Understood the importance of social equity and fairness	16.7	53.3	30.0
30- Drawn new plans for improving my professional career	17.8	48.3	33.9
31- Participated in cultural and social activities	14.4	46.1	39.5
32- Realized the importance of equal opportunities in the society	19.4	47.8	32.8
33- Become able to match between my abilities and ambitions	19.4	47.8	32.8
34- Acquired the critical sense of judgment	16.7	48.3	35.0
35- Obtained the ability of problem solving	20.0	48.3	31.7
36- Appreciated the values of professional and moral commitment	25.0	54.4	20.6
37- Understood the importance of training for increasing competency	25.0	49.4	25.6
38- Sought constantly to be diligent and creative in study and work	26.7	49.4	23.9
39- Decided to reconsider the priorities in my daily agenda	21.7	48.3	30.0
40- Realized that every one should have a right for career development	28.3	49.4	22.3

The Design of a Survey Instrument to Investigate Problem-based Learning Tutors' Beliefs and Challenges: Establishing Validity and Reliability

Kareen McCaughan

This article describes the four-stage design of a valid and reliable survey tool of 84 items, The Facilitation Perceptions Survey (FPS), to investigate PBL tutors' pedagogical beliefs and challenges with nondirective facilitation. Procedures and statistical tests to establish validity and reliability are reported. The alpha coefficients of survey reliability demonstrated highly acceptable levels. The results of the survey demonstrated that most tutors hold pedagogical beliefs consistent with Barrows's PBL tutor principles and are most comfortable with verbal nondirective facilitation techniques. The tool offers a new resource for PBL tutor development; the report provides a description of a process for developing a survey tool, the survey being a very common data gathering method in educational research.

Problem-based learning (PBL), which has been viewed as the most outstanding curriculum innovation in medical education (Holmes and Kaufman, 1994) has spread to other professional schools (education, architecture, engineering, and law) and to post-secondary, secondary and elementary education world-wide. In Problem-based learning (PBL) the teacher who usually works with a small group of students is referred to as a tutor to reflect the facilitation behaviours of this role. This form of facilitation as defined by Barrows (1988) requires the tutor's awareness of the inquiry/reasoning process coupled with a willingness to allow the student to self-direct his/her learning through experiment, inquiry, and study. The facilitation process uses a mix of direct and nondirective guidance, enabled through verbal and nonverbal techniques, to carry out PBL tutor principles of PBL (Barrows 1988).

Since the core works on PBL were published by Barrows (1988) it has been argued that assuming a PBL facilitator role often requires an adjustment in assumptions and beliefs about the teacher role that is difficult for many faculty members to learn (Baptiste, 2003; Neufeld & Barrows, 1984; Neville, 1999; Wilkie, 2004). Many scholars have speculated that PBL tutors struggle to incorporate new nondirective facilitation techniques into their role because this type of facilitation

requires different behaviours from the traditional directive teaching and general facilitation skills to which they are accustomed (Boud & Feletti, 1999; Jung, Tryssenaar & Wilkins, 2005; Olmesdahl & Manning, 1999; Rogers & Freiberg, 1994; Schmidt et al, 1994; Wilkie, 2004). Teaching methods that involve a pedagogical shift from traditional teaching, often characterized as teacher-centred, to student-centred approach like PBL, bring changes in expectations for teacher and student roles (Barrows 1988; Maudsley, 1999).

The purpose of this study was to investigate the pedagogical beliefs and challenges of the PBL tutor. In order to do this a survey instrument was designed to be valid and reliable. What is reported in this is the process of developing this instrument. Whereas many PBL scholars explain PBL design in terms of constructivism or cognitive psychology constructs (Campbell, 1999; Dolmans & Ginns 2005; Kaufman & Holmes, 1998; Krivel-Zacks, 2001; Wolfhagen and van der Vleuten, 2005), this study linked pedagogical beliefs about PBL with theories of John Dewey and Carl Rogers.

Method

Participants

The study was conducted with a sample of PBL tutors in the medical education

programs at McMaster and Dalhousie universities in Canada using a researcher-developed online survey during the first few weeks of the fall semester 2007. Threats to external validity were addressed by minimizing bias and random error. In this study, efforts to control bias error included avoiding systematic differences in the sample by selecting participants from medical education programs with a similar curriculum. Both programs have substantial experience with PBL, use a large number of tutors (over 100), have the same role expectations of tutors, and employ tutors from a variety of clinical and nonclinical backgrounds (clinicians, physicians, basic scientists, pharmacists, researchers) rather than graduate students. The sample of 51 had an equal number of male and female tutors, represented eight medical departments and a comparable number of full-time and part-time faculty (including 2 residents). The majority of the participants were practicing physicians (doctors of medicine) who, in addition to their clinical position, also serve as tutors. The number of tutors invited to participate was approximately 289 and the number that participated was 51. The response rate was 18.5%.

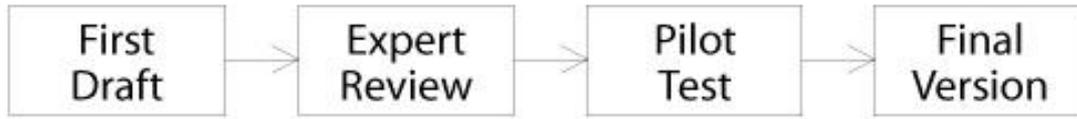
Instrument Design

Data from surveys or attitude inventories serve educational research and tutor development purposes well (McMillan & Schumacher, 2006) so it is important that care be taken in developing such instruments. The survey technique has numerous advantages. It places minimal time demands on individuals while presenting a large number of questions, provides a vehicle to trigger thinking on topics and provides time for reflection before responding, and can be delivered in different modes: by mail, by telephone, face-to-face or online. Over the past decade the use of online surveys has become popular due to increasing ease of accessibility and use of the Internet, affordability, automatic compilation of

responses to a database, question consistency, and anonymity (Creswell, 2005). At the same time, online surveys can pose technical and security challenges. Some technical know-how is required to develop and/or mount electronic surveys. For educational research, ethics approval bodies may require that arrangements be made to store the electronic data (survey responses) on a secure server.

Most tutor research using surveys has been through course evaluations completed by students (Cottrell, Wimmer, Linger, Shumway, & Jones, 2004; De Grave, Dolmans & Van der Vleuten, 1998). These surveys primarily measure course satisfaction with general questions on tutor performance. Some tutor research has used self-report surveys and inventories to assess teaching beliefs in professional programs using a PBL approach (Groves, Rego, & O'Rourke, 2005; Schmidt & Moust, 1995) and in higher education (Pratt, 1992; Zinn, 2004). The survey developed in this study aimed to increase the granularity of questions about pedagogical beliefs and nondirective facilitation behaviours in a PBL context.

In its final form, the survey instrument, the Facilitation Perceptions Survey (FPS), contained 84 closed items organized into three parts. Part A contained pedagogical beliefs items; Part B contained facilitation techniques items; and Part C contained demographic questions. In Part A, tutors were asked to indicate how much they agreed with each statement on a scale from 1 to 5 (1 - strongly disagree, 5 - strongly agree). In Part B tutors were asked to indicate their comfort with each item using a scale from 1 to 5 (1 - very uncomfortable, 5 - very comfortable). The multi-stage survey design process (Czaja & Blair, 2005) from first draft to final version as it developed progressively through four iterations is depicted in Figure 1.

Figure 1. Survey Design Sequence

First Draft

The first draft of the survey consisted of statements from the literature with considerations for content, comprehension and usability as recommended by Groves et al. (2004). Content validity planning began by defining the content domain for each part of the survey followed by checking that items were representative of the domain. Items in Part A were based on Barrow's PBL recommendations, PBL tutor principles, and the theories of Dewey (1938, 1997) and Rogers (1951). Items were differentiated into three dimensions: by content (PBL Approach, Tutor role, and Student role), by source (PBL recommendations and tutor principles, Dewian and Rogerian approaches), and by pedagogical approach (PBL, Behaviourist). Part B items were classified into nondirective facilitation technique type (verbal or nonverbal) and by domain type (PBL, Client-centred theory and therapeutic communication).

To ensure clarity of the questions criteria for good question construction (Suskie, 1996) were followed: (a) brevity; (b) readability; (c) one question at a time; (d) clarify definitions, assumptions and qualifiers; (e) low memory demands; (f) avoid asking for very precise responses; (g) avoid asking for broad generalizations about attitudes or opinions; (h) easy and fast to answer; and (i) avoid biased, loaded, leading or sensitive questions. At the same time, the wording of items varied so that some items were written positively while others were negatively worded. Reverse wording was built into some items to prevent habituation or response sets (tendency for a respondent to answer a

series of questions in a certain direction regardless of content).

The location of items was also considered. Items in each section were organized in a logical sequence beginning with a few interesting and non-threatening items and those that addressed a similar topic or theme were grouped together (Cozby, 2001). To enhance internal consistency similar questions were included in each section; for example, in Part B, item 5 (asking primarily open-ended questions) and item 24 (minimizing closed questions). Reliability was also examined through correlations of individual items and overall questionnaire scores (Suskie, 1996). As the visual design of a page/screen can influence participant motivation to complete a survey, overall survey design also included creating a visually pleasing graphic design with plenty of white space and simple graphic elements.

Second Draft: Expert Review

An early step in establishing content validity includes testing the representativeness of item content by knowledgeable experts. Four PBL experts assessed items in Parts A and B of the first draft of the survey to determine how closely they represented the content of each domain. The experts verified that the survey was not difficult to complete, did not arouse any feelings of anxiety, could be completed quickly, and the statements were properly sequenced. Revisions were made following suggestions to reword some items for clarity.

Third Draft: Pilot Test

After an initial judgement of face validity has been attained it is customary to present the survey to a larger group for pilot testing (Cozby, 2001; Creswell, 2005). A pilot test of the survey with eight tutors in McMaster University's medical education program was conducted to reveal any potential problems with survey instructions, ambiguous items, technical problems, and to further evaluate content validity. Participants identified items that needed emotional intensity (an attribute that is unique to attitude statements and represents its tendency to be for or against an object, event, issue, or person), suggested revision of the scale to a 5-choice Likert scale, and verified ease of survey completion in 30 minutes. Items of little or no value were deleted and ambiguous items were rewritten for clarity and emotional intensity. Additional items based on a Behaviourist approach were added to prevent instrument bias (Likert, 1932). In total 19 new items were added and two items were deleted bringing the total number of items for Part A to 36 items. Suggestions for Part B resulted in retention of 33 items, two of which were rewritten, item 17 (Using closed questions, such as, Do you understand?) and item 31 (Lecturing during tutorial).

Final Version

Following revisions to the survey from pilot test recommendations, three members of the pilot test group and one member of the expert panel again reviewed the amended survey. One item was subsequently modified to increase clarity. The final version of the survey contained 36 items in Part A (Beliefs) and 33 items in Part B (Challenges). Part C contained 15 Background items to collect tutor demographic information such as age, gender, university affiliation, education, discipline specialty, tutor position, teaching and tutoring experience, psychotherapeutic/counselling experience, and professional development in tutor

training interest. Participants were asked to respond to a total of 84 questions.

Issues of survey reliability are important considerations during survey design as well as after data collection. Factors known to influence reliability such as scoring accuracy and motivation were considered. Scoring accuracy was attended to through the use of an electronic online survey with electronic scoring. Motivation was addressed through graphic design, the wording of the cover letter, and testing the functionality of the technology prior to survey delivery.

Survey Administration

An email invitation to participate in the study was sent to 286 tutors, 179 at Dalhousie University and 107 at McMaster University. Of the total, 51 (18%) responded. After several participants experienced problems viewing the hypertext link on the introductory screen from the cover letter to the survey, measures were taken to increase link visibility. Respondent data were electronically compiled and imported into SPSS for analysis.

Validity and reliability testing post-survey administration

After survey data have been collected statistical analysis of validity and reliability can proceed. Post survey administration, data screening; transformation; establishing central tendency and variability, internal consistency, content, construct, convergent, and discriminant validity are undertaken. In this study negative skewness statistics indicated alignment of responses with test constructs (PBL principles, and the theoretical principles of Dewey and Rogers). Cronbach's alpha is commonly considered the statistic of choice to establish reliability. Although Cronbach's alpha statistics for survey items were found acceptable (over 0.7) for both Parts A and B, items with lower

correlations (less than 0.3) were removed to improve reliability. When the analysis was repeated, alpha for Part A increased from 0.70 to 0.83 and alpha for Part B increased from 0.84 to 0.86. Items that showed no real contribution to the whole were deleted. Mean scores and standard deviations for Beliefs (Part A) varied between 2.0 and 4.3, with corresponding standard deviations varying between 0.7 and 1.2 ($n = 51$). The average score on Facilitation Comfort (Part B) varied between 2.7 and 4.3 with corresponding standard deviations varying from 0.7 to 1.2 ($n = 49$).

Convergent validity was explored through item correlations. Analysis showed that each group of items had unidimensionality—that they were measuring one thing or an overall construct. The correlation matrix of Part A items resulted in numerous significant correlations at the $p < .05$ level. The highest significant correlation emerged between item 3 (Learners need to use inquiry in their analysis of problems) and 15 other items, $p < .05$ level). The correlation statistics suggest that tutors who believe in the importance of inquiry also believe in PBL tutor principles. This finding provided evidence of convergent validity for the PBL construct in Part A.

All items in Part B significantly correlated with several other items. All seven nonverbal nondirective facilitation items correlated significantly, $p < .05$. The significant relationship between these items demonstrated convergence on a construct around tutor intervention techniques that use nonverbal techniques to indirectly facilitate, such as avoiding expressing opinions, withholding suggestions, restrain offering key information, withholding information, using neutral responses, and using silence. Eight items converged ($p < .05$), representing facilitation techniques that actively stimulate learning, such as

probing, guiding, encouraging self-expression, and prompting expression of understanding. Convergence was found between five items ($p < .05$): item 5 (Asking primarily open-ended questions), item 21 (Rewording learner dialogue for learner clarification), item 26 (Probe to induce information sharing), item 30 (Stimulate learners to explore group dynamics), and item 32 (Avoiding intervening in groups). This group of items appeared to centre on tutor behaviours that empowered learners to control the learning situation. In this way, participants expressed comfort with facilitation techniques related to learner autonomy. Content, construct, convergent and divergent validity testing as well as reliability testing revealed that the instrument had acceptable validity and reliability. Correlation analysis revealed that items in each part of the survey had unidimensionality and measured the same construct.

Results

The relative frequency of scores 1-3, representing disagreement or “no opinion”, and scores of 4-5 representing positive agreement with item statements was computed. Most participants agreed with 18 of 19 items that survived reliability testing in Part A. Eighty-two percent (82%) of participants disagreed with one item concerning tutor expertise, item 32 (The tutor should be an authority on the information being learned). The high percentage of item agreement showed the majority of tutors held beliefs consistent with PBL tutor principles. Although tutors were in agreement with each of the three PBL beliefs types (PBL, tutor role, and student role) the Kruskal-Wallis and Bonferroni tests determined a significant difference between the three belief types ($\alpha = 0.05$). The chi-square statistic was 14.78 ($df=2$). This finding indicated participants believed more highly in student role and PBL approach belief items than tutor role belief items.

Table 2. Examples of Part A Survey Items Relative Frequencies

Survey Item	Disagree		Agree	
	<i>n</i>	%	<i>n</i>	%
2 The presentation of a problem first is the best way to initiate learning	14	27.5	37	72.5
3 Learners need to use inquiry in their analysis and formulation of problems	6	11.8	45	88.2
4 Learners must be able to justify that they have reasoned correctly	12	23.5	39	76.5
5T Conditions which promote curiosity, prompt questions and contain suspense are necessary for learning	6	11.8	45	88.2
6 Knowledge and skills are best acquired within the context of what the learner intends to do with them	11	21.6	40	78.4
10 Learning is enhanced when learners verbalize their thinking as they work through a problem	6	11.8	45	88.2
13 Tutors should communicate indirectly using open questions such as “It sounds like you have some concerns about this issue ” to encourage self-expression of reasoning and feelings	10	19.6	41	80.4
14 Interacting with others in a group increases the likelihood of finding solutions to problems	7	13.7	44	86.3
15 Learners need to constantly evaluate the information they use	3	5.9	48	94.1

Facilitation comfort and challenges

Forty-nine participants completed Part B of the survey. There are 33 items in this section. Item responses varied ($M = 2.7$, $SD = 1.02$ to $M = 4.22$, $SD = .58$). The relative frequency of scores with item statements was computed. Frequency percentages showed higher percentages of participants were comfortable with 22 of 26 items. Five items had the highest comfort frequencies: 91.8% of participants were comfortable with item 5 (Asking open-ended questions); 91.8% were comfortable with item 26 (Probing to induce information sharing); 85.7% were comfortable with item 16 (Stimulating link searches); 83.7% were comfortable with item 25 (Allowing learners time to respond); and 79.6% were comfortable with item 23 (Comparing learner comments). The four items associated with high discomfort included: 77.6% for item 32 (Avoiding intervening during group struggles), 63.3% for item 8 (Withholding suggestions), 59.2% for item 27

(Stimulating self-reflection), and 55.1% for item 20 (Withholding information).

A paired *t*-test using composite scores between verbal and nonverbal items indicated a difference between the two composite verbal and nonverbal variables at $t = 3.88$, $p = 0.0003$. Item 1 (Probing learners to think about how they think) is an example of a verbal item whereas item 6 (Avoiding expressing opinions -approval or disapproval- concerning correctness or quality of learner contributions) is an example of a nonverbal item. From the data there was sufficient evidence to say that participants felt more comfortable with verbal items than nonverbal items at $\alpha = 0.05$ level. The Friedman test showed that there was a significant difference ($\alpha = 0.05$) between items in terms of comfort level within verbal and nonverbal categories. Multiple comparisons of items in the verbal category for the highest comfort levels using the Bonferoni test showed tutors had significantly higher comfort ($\alpha = 0.05$) with item 16

(Stimulating learners to search for links between issues), item 26 (Using probing questions to induce learners to volunteer information), and item 22 (Asking probing questions to simulate learners to elaborate their statements with additional information).

Multiple comparisons of items using the Bonferonni test for lowest comfort levels for the verbal category showed that tutors had lower comfort with item 27 (Simulating self-reflection), item 9 (Verbalizing my interpretations), item 24 (Confronting learners), and item 11 (Responding with neutral language). The Bonferonni test showed that item 16 (Simulating learners to search for links) and item 26 (Using probing questions to induce learners to volunteer information) were the most comfortable verbal facilitation techniques. The Bonferonni test on nonverbal nondirective items showed participants had the lowest comfort with item 32 (Avoiding intervening during group struggles); item 8 (Withholding suggestions for specific resources); item 20 (Refraining from providing information to stimulate learners to identify their learning goals and issues by themselves); item 6 (Avoiding expressing opinions); and item 7 (Utilizing self-restraint from offering important information). This multiple comparison test also showed participants had the most comfort with item 25 (Delaying my responses with silence) and item 28 (Remaining silent during group discussions). In summary, the Bonferonni test provided a more substantial item comparison than means alone on facilitation technique comfort.

Discussion

The purpose of this study was to report on the validity and reliability of The Facilitation Perceptions Survey (FPS) used to investigate PBL tutors' pedagogical beliefs and challenges. Fifty-one tutors from two medical education programs that

use a PBL approach participated in the study. An iterative development model consisting of four stages was used to develop the survey tool. A multi-stage design process such as the one described in this report ensures face and construct validity. Survey items were judged as representative by PBL experts, and further validated through pilot-testing. Their recommendations based on knowledge and experience with PBL and research methods, determined survey items. The results of this study indicate that the FPS (84 items) is a valid and reliable survey tool for the purpose stated above. Nonetheless, repeated testing should be undertaken to ensure consistency of interpretation.

Further, through the subdivision of pedagogical beliefs, the results showed that participants believed in all belief subtypes, but believed more highly in student role and PBL approach beliefs than tutor role beliefs. This finding may be indicative that the PBL tutor role is less well integrated in a tutor's belief system than that of student role or PBL approach. It was unexpected to find high agreement with item 13 (The tutor should communicate indirectly using open-ended questions). This finding serves to underscore the relevance of this study's research into nondirective facilitation. While it was expected that tutors' beliefs would align with Dewian beliefs due to similarities noted in the literature, the alignment of PBL tutor beliefs with those of Rogers is uncommon and distinctive to the findings of this study. Although participants were comfortable with both verbal and nonverbal nondirective facilitation techniques, they reported most comfort with verbal nondirective facilitation techniques. The results suggest the FPS is a useful tool for tutor development that may assist tutors to reflect on their pedagogical beliefs and their facilitation comfort and challenges. It provides an engaging workshop activity in

PBL tutor training. With minor modifications, the background section of the survey is applicable to tutors in other professional programs such as nursing, dentistry, law, or education. At the same time the instrument has potential benefit to individuals who may not identify themselves as tutors but whose professional role clearly involves facilitating learning.

Application to Teacher Education

This report describes the design of a survey tool for teacher education research in medical education. Given that the survey is a commonly used research method in teacher education and given that survey instruments are frequently developed for investigating specific research problems, it is hoped that many in the field will find the process of instrument development described in this paper helpful. Regardless of the application, survey designers will want to consider the following features as crucial when designing a valid and reliable instrument, thereby increasing the credibility of the survey results:

1. Draft items attending carefully to item construction details (e.g. wording, clarity, and simplicity).
2. Ensure items represent the content domain of interest and research objectives.
3. Prepare items to facilitate convergent validity and correlation analysis.
4. Minimize the number of items with at least 7 items on any given topic.
5. Use consistent measurement scales (e.g. 1-5) for each topic to permit comparison between topics.
6. In attitude and opinion items offer a neutral or no opinion option.
7. Validate item content (construct validity) with several groups (content experts and pilot test).
8. Prevent habituation and response bias by varying positive and negative wording.
9. Consider psychological impact of item order. Locate less sensitive items first.
10. Anticipate multiple verification checks and revisions.

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