

Preparing the Teacher to Meet the Challenges of a Changing World

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Abstract

In this 21st Century there has been changes in almost all the aspects of human endeavour. This has created numerous challenges which need to be tackled by the current educational systems of all nations. If robust plans are not put in place to educate the upcoming generation to effectively function and develop their societies, continuity of the succeeding generations may be hampered. The sheer complexities of these challenges make learning by simple rote memory and regurgitation of facts inadequate for effective living. Identified 21st Century literacies and survival skills, such as competencies in collaboration, communication, adaptations, ability to access, analyse and use information, among other, must be developed and reinforced in learners for effective participation in today's knowledge economy. This paper emphasizes that teachers cannot give what they do not have. Therefore a call is made to examine and review teacher preparatory programmes and other support arrangements in the educational system, to adequately prepare teachers for their emerging roles.

Keywords: Preparing the Teacher, Challenges, Changing World.

1. Introduction

There are lots of changes taking place in all sectors of the society in the 21st century. Some of the changes are occurring more frequently and at a much more rapid pace than in the preceding centuries. This century has already witnessed many upheavals, movements of people across ethnic and or country borders, more displaced persons, refugees and asylum seekers, more environmental changes with the issues of global warming, natural disasters of phenomenal significance, and population explosions especially in the underdeveloped nations among others. There has also been advancement in science and technology, communications, space technology, research processes/knowledge generation in patterns of human beliefs and in the social values of individuals and groups. The thorny issues of marriage institution with the same sex marriages gaining acceptance in some parts of the world and the ethical issues on cloning of human parts and other issues in the medical science also pose additional challenges. These, among others have put a lot of pressure on decision-making processes concerning exercising more restraint/control on human activities and the processes of maintaining harmonious relationships between individuals, groups, organizations and nations. There has also been a lot of narratives propagating a more eco-friendly environment through reduction in the use of fossil fuel that is impacting the ozone layer. These and other reasons have prompted many nations to experiment and even develop alternative sources of fuel with the hope of finding a solution to the depleting ecological system.

There are also other challenges to human coexistence which include adjustment problems, increased intolerance among individuals and groups, increased poverty, increased financial burdens on donor nations, religious bigotry, insurgencies and increased criminal activities. Each of these problems present enormous challenges to the educational system. Taken together, they compel a fundamental reconsideration of all the assumption about what children need to learn and how learning takes place for today's young people.

One of the aims of education is to train the individuals in societies to acquire appropriate skills to benefit self and also to contribute meaningfully to the development of the society. Such training builds capacity, thus arming the individual to acquire requisite skills, desirable virtues, good morals, tolerance and other acceptable social behaviours that are valuable in nation building, promoting coexistence and the development of the society. Education has long been recognized as a veritable tool for socialization and the development of positive social behaviours among individuals and groups. Thus the process has come to stay as an instrument par excellence in bringing about appropriate changes employed in developments of nations in line with societal needs and objectives.

It is a known fact that youths in nations of the world are regarded as leaders of tomorrow, but the youth cannot play this role except they have been trained. Secondly, moral values and the basic skills for the development of societies are shaped in a decisive manner during adolescence/formative and the youthful period of people's lives. Thus, time is usually spent drawing up appropriate educational programmes to adequately prepare the youths for their future roles. At the background of this care in drawing up the programmes, is that appropriate traits being targeted by the society be carefully woven into the educational programmes with the hope that such traits develop as the learners participate in the programmes. In recent times, adequately educating the youth for their future roles has dominated the agenda of many local and international organization deliberations. One example is how the topic prominently featured as one of the challenges of the 47th ICE session

(Geneva, 2004) under the heading “how to foster an education that prepares young people to face the challenges of a globalization with a human face”. At that forum the matter was exhaustively deliberated on and a memoranda issued to ensure that functional educational programmes are put in place to meet 21st century emerging needs. After all authentic education according to Wagner (2011) addresses the “whole child” and the “whole person” and does not limit professional development and curriculum design to workplace readiness only. Thus developing functional programmes in education is a very complicated and delicate task because programmes in education have to be relevant in the present society of learners and also in the future society in which the learners will live and work in their adult age. It is therefore of essence that “no stone should be left unturned” in selecting and preparing appropriate learning experiences for training/developing the teachers who implement the educational programmes.

2. The teacher and the educational system

It has been said that no educational system can rise above the quality of its teachers (National Policy on Education, 2004). Reiterating this position, Rathi (2015) comments that no society can be more dynamic than its system of education and no system of education can be more dynamic than its teachers. He continues further that the quality of an educational system depends upon the quality of teachers who man it. This statement shows that teachers play a key role in the success of any educational programme. Wright, Horn and Sanders (1997) have documented that the most important factor affecting student learning is the teacher. Even though their result show a wide variation in effectiveness among teachers, effective teachers, they found, are effective with students of all achievement levels, regardless of the level of heterogeneity in their classrooms. Thus the immediate and clear implication of their finding is that more can be done to improve education by improving the effectiveness of teachers than any single factor. This clearly brings out the role teachers play in the success or not of educational programmes. It therefore follows that to adequately prepare today’s youths to meet the 21st century challenges explained above, the teachers involved in the training must themselves possess the skills aimed at. For educational programmes to be successful, high caliber professional teachers prepared to uphold the desirable behaviours being sort, have to be brought into the system. With the curriculum at their disposal, the right caliber of teaching, support staff, and an efficient teaching/learning environment, all societal aspirations can be achieved through education.

3. Rationale for a new order in Teacher Preparation for the 21st Century Challenges

Faced with all the changes and challenges discussed above, the educational institution acting as an organ of socialization assumes the enormous task of training individuals who should proffer solutions to these emerging needs in the society to meet the resulting emerging challenges. The focus of this study therefore is to closely examine the teacher training processes in order to identify what can possibly be done to improve the teacher’s preparedness to meeting the needs of students in the face of the current challenges. To do this, desirable 21st century survival skills, literacies and other current practices have been examined to bring to light best practices to ensure teachers are sufficiently equipped to pass on the requisite skills to the students.

The 20th century according to Braslavsky (2001) held a lot of promise in respect of developments in the state of knowledge. This she observes, has created a major challenge for the 21st century which is to ensure that these developments are used in the promotion of peace and prosperity of nations, for the improvement of the quality of life of people, thereby truly allowing for the survival of humanity. Unfolding developments show that current global knowledge economy is highly competitive as all students now require new skills to acquire university education, careers and citizenship. Thus schools would be seen as outdated if they are unable to graduate students with the requisite skills to meet the needs of today’s society. In the words of Wagner (2011), “in this 21st century, mastery of the basic skills of reading, writing and Arithmetic; the 3 R’s, are no longer sufficient for survival”. This he explains, is because simple recall and regurgitation of facts are no longer sufficient for successful living in a challenging world such as this. Almost all jobs now require employees who must know how to solve a wide range of intellectual and technical problems. The Partnership for 21st Century Skills (2010) commenting on the “Fundamental Changes in the Economy, Jobs and Businesses” have noted that there is a shift in skill demands. They explained that individuals today must be able to perform non-routine creative tasks. Not only is it rewarded with more earnings, but to excel in non-routine work has become a basic requirement for success in job positions, they conclude. Thus skills like self-direction, creativity, critical thinking, and innovation is gaining a prominent place in people’s life today. It is now a requirement in every aspect of life to think critically, solve problems, communicate, collaborate, find good information quickly and use technology effectively. These are today’s survival skills, which are not only for career success, but also for personal and civic quality of life as well (The Partnership for 21st Century Skills, 2010). Darlington-Hammond (2006) has also noted that standards for learning are also higher than before as citizens and workers need greater knowledge and skills for service and to succeed. Thus this 21st century demand that everyone know how to think, to reason, analyse, weigh evidence and problem solve.

Reinforcing this position, American Association of Colleges of Teacher Education (AACTE) and Partners for 21st Century Skills (P21), (2010) have added that to be college and career ready today, student learning must go beyond mastery of core subjects only and include 21st century knowledge and skills like critical thinking, communication, collaboration and technology literacy. They believe that new teacher candidates must be equipped with these 21st century knowledge and skills and learn how to integrate them into classroom practice specifically for the American nation to realise its goal of successfully meeting the challenges of this century. They reiterate that this is not a matter of teaching either academic or 21st century knowledge and skills but it's about fusing on the two, so that learners meet the demands of a global economy, as well as engage in good citizenship and participate fully in a vibrant and civil society. In line with this thought, the US Secretary of Education, Arne Duncan (2009) in answer to the question "are we adequately preparing future teachers to win this critical battle?" notes that teaching has never been more difficult, it has never been more important and the desperate need for more students' success has never been so urgent. She adds further that today teachers are asked to achieve significant academic growth for all students at the same time that they instruct students with ever more diverse need. Duncan (2009) concludes with a call to recruit, reward, train, learn from and honour a new generation of talented teachers.

Responding to the clarion call of what roles educator preparation programmes should play in enacting this needed change, AACTE (2010) recommend the establishment of a vibrant vision for educator preparation; one that leverages the best of what has worked in the past, combined with what educators need now and in the future. They also make a call for the support of all educators in developing 21st century knowledge and skills among students so that they are ready to meet the needs of the global economy, engage in good citizenship and participate fully in a vibrant and civil society.

Another argument for advocating for improvements in teacher preparatory programmes, is that the world is facing an exponential increase of readily available information and new technologies that are constantly changing in the midst of the societal challenges. In many countries of the world, today's students have been referred to as "digital natives" and today's educators as "digital immigrants" (Prensky, 2001). Teachers are working with students whose entire lives are immersed in the 21st century media culture. Today's students are digital learners; because they literally take in the world via the filter of computing devices: the cellular phones, handheld gaming devices, PDAs and laptops they take everywhere in addition to computers, TVs and game consoles at home (Wagner, 2011). The question then is; how can the "immigrants" successfully train the "natives"? This argument brings to light the fact that to fail to give all students these new skills will leave today's youths and our nations at an alarming competitive disadvantage. This is because, these are no longer skills that only the elites in the society must master; they are essential survival skills for everyone living in the 21st century (Wagner, 2011). Additionally, as Wesch (2008) has pointed out that, although today's students understand how to access and utilize these tools, many of them are used for entertainment purposes only, and the students are not media literate. This challenge has to be addressed in the educational system and who is in a good position to do this but the teacher. This buttresses the need for today's teachers to be adequately prepared to teach the students how to use the tools to enable the students become truly media literate as they function in an online collaborative, research-based environment; researching, analysing, synthesizing, critiquing, evaluating and creating knowledge.

4. Guide to Developing 21st Century Teacher Education

Shaw (2014) identified three compasses to be followed to develop education that can be categorized as 21st century. The first direction is that the educational programmes must have the critical attributes of being:

- Integrated and interdisciplinary
- Student-centred
- Project based and Research-driven
- Relevant, Rigorous and Real world
- Technologies and Multimedia
- Global classrooms and Globalization
- Adapting to and creating constant personal and social change and lifelong learning.

The second emphasis or direction should be in developing multiple literacies for the 21st century. This Shaw (2014) continues should include:

- The Arts and Creativity
- Financial literacy
- Media literacy
- Ecoliteracy
- Cyberliteracy
- Social/Emotional literacy
- Physical Fitness and Health literacy

- Global competencies and Multicultural literacy.

All of which describes the various capabilities and competencies needed for successful living in this century. The third focus she points out should be based on the seven 21st century survival skills identified by Wagner (2011). The seven survival skills are:

- Critical thinking and problem solving
- Collaboration across networks and leading by influence
- Agility and adaptability
- Initiative and entrepreneurialism
- Effective oral and written communication
- Accessing and analysing information
- Curiosity and imagination

According to Wagner (2011) these seven survival skills can be learned within a curriculum that is interdisciplinary, integrated, and project based. This goes to demonstrate the relevance and interdependence of the three compasses or areas of focus (discussed above) advocated by Shaw (2014) which are critical attributes, multiple literacies and the seven survival skills for the achievement of 21st century education.

5. The teaching acts and the Demands

Teaching is a purposeful action according to Greene (1973). The central task of teaching is enabling learners with very different experiences, learning styles, and starting points to acquire common, high-level knowledge and skills. One of the most important dispositions as a teacher is to develop the ability to continue to seek strategies for reaching students who are not initially successful. This is because being a professional involves not simply “knowing the answers” but also having the skills and the will to evaluate one’s practice and search for new answers when needed, both at the class room level and the school level. To be an expert in teaching, like experts in other fields, teachers need to be trained to analyse complex situations and bring to bear many sources of knowledge about how to respond to them. They also have to be trained to have broader and more flexible repertoire of skills they can use to achieve their teaching goals.

Helping teachers learn to teach effectively requires that they not only learn to “think like a teacher” but also that they too be able to put what they know into use. Thus teachers must be trained to do a wide variety of things, many of them simultaneously. Meeting this challenge requires much more than simply knowing one’s subject matter or discussing ideas about teaching. Darlington-Hammond and Baratz-Snowden (2005) explain that the issues teachers face regarding their practice are similar to those encountered in other professional fields but are even more challenging. Teachers, they continue, do many more things at once, with many more clients assembled at one time, than do most other professionals. These they conclude include developing an authoritative classroom presence, good radar for watching what many different students are doing and feeling at each moment, and skills for explaining, questioning, discussing, giving feedback, constructing tasks, facilitating work and managing the classroom all at once.

As teachers become more mature on their jobs some aspects of teaching may become somewhat routine, but they will still be influenced by students’ changing needs and unexpected classroom events. Even though in practice many other decisions in teaching cannot be made routine because they are still contingent upon student responses and the particular objectives sought at a given moment, developing routines can be helpful and can free up teacher’s attention for other aspects of their work. Darlington-Hammond and Baratz-Snowden (2005) however caution that, offering only routines does not help teachers develop the diagnostic and instructional skills for dealing with students who require different approaches or additional supports if they are to learn successfully. Thus teacher preparatory programmes should develop in them abilities to analyse and expand their repertoire of teaching strategies, along with the knowledge of when different strategies are likely to be useful and to quickly move from “novice” to expert thinking. That way, they will become more able to deal with many aspects of class room life and also attend to the intellectual needs of their students.

According to Perrone (1991) for teachers to remain relevant and effective they have to survive as learners growing professionally and personally. Teachers need to continue to learn all their lives, this ensures their personal and professional growth and development. In addition, the quality of teachers’ understandings influence to a large degree what teachers do in the classrooms. Thus the teachers’ intentions and actions in the classroom will inevitably be affected by the assumptions they make regarding human nature and human possibilities. If they are limited in their thinking, so limited will be what they will achieve in the classrooms. The quality of teacher’s understanding needs to be expanded. This consequently means that as experts in education are concerned about learners acquiring 21st century knowledge and survival skills to effectively play their roles in the world they live in, the same should be applicable to the teachers. The teachers cannot give what they do not possess. To be effective, the teachers too must be trained to acquire these literacies and skills that they must promote in their classrooms.

The discussions so far point to the fact that the 21st century teachers should move from the primary role

as dispensers of information to orchestrators of learning and helping students turn information into knowledge, and knowledge into wisdom. As shown above, this century require knowledge generation, not just information delivery, and schools will need to be able to create a “culture of inquiry” to elicit curiosity and imagination in their learners. To this Darlington-Hammond (2006) notes that in previous decades, teachers were expected to prepare only a small minority of students for ambitious intellectual work, today they are expected to prepare virtually all students for higher order thinking and performance skills once reserved for only a few.

6. Developing Teacher Preparatory Programmes to meet the Challenges of the 21st Century

Research has shown that an inspiring and informed teacher is the most important school-related factor influencing student achievement. The best teacher preparatory programmes should emphasis subject matter mastery and provide many opportunities for student teachers to spend time in real classrooms under the supervision of an experienced mentor. Just as professionals in medicine, architecture, law and others, have opportunities to learn through examining case studies, learning best practices and participating in internships, exemplary teacher preparation programmes should allow teacher trainee the time to apply their learning of theory in the context of teaching in a real classroom (Edutopia, 2008). Therefore it is critical to pay close attention to how both new and experienced educators are trained and supported in the educational system.

In preparing and supporting teachers to be successful in their roles, it is proposed that three important strategic points during the duration of their involvement in the educational system should be targeted. These should include:

1. The point of their initial training at the various teacher training programmes prior to their initial employment as teachers. Teacher preparatory programmes should be reviewed and enriched with 21st century literacies and skills to meet today challenges. Mentoring and coaching from veteran instructors and colleagues is critical to the successful development of a new teacher.
2. The existence of various induction programmes at the point of their offer of employment into the educational system at whatever level. Induction programmes create opportunities for novice teachers to learn from best practices and analyse and reflect on their own teaching.
3. The various developmental programmes in the form of in-service programmes, online courses and other opportunities for collaborations with peers. Ongoing professional development keeps teachers up to date on new research on how children learn, emerging technology, tools for classroom, new curriculum resources, etc. The best professional development should be ongoing, experiential, collaborative and connected to and derived from working with students and understanding their culture. One of the best sources for teachers to learn more about teaching and learning, growth and development of students, materials and methods, is through an examination of their own practices and their classrooms. Thus developmental programmes should be ongoing and a must for serving teachers and policies should be developed to ensure compliance among practitioners.

7. CONCLUSION

The issues facing the world today has led to a need for students to be able to communicate, function and create change personally, socially, economically and politically on local, national and global levels. Students can be made to participate in real-life, real-world learning projects to ensure the development of the needed competencies and skills to thrive in today’s world. To do this the teacher development and training programmes will need to be revamped in line with the emerging needs of the 21st century learners. Since teachers cannot give what they do not have, it is imperative that the teachers themselves will have to be trained to acquire the 21st century literacies and skills that must be developed in the learners. As noted by some authors, many colleges and universities are already revamping their Faculties of Education and educational programmes to include emphasis on content knowledge, increased use of educational technologies, creation of professional development schools and innovative training programmes. The call therefore is for others who are not already doing so to follow in these footsteps. Teacher development at all stages of a teacher’s career is vital to the success of her students and job satisfaction. With this in mind, the teacher educational programmes should include high social and community content because they need to be sensitive to the needs of students and environment, recognise individual differences and collaborative work among educators. This is the trend in today’s world. The students are being trained to live in the 21st century society, therefore the skills they should possess, must be those relevant for survival in the society they live in. Thus every educational system in the world must improve and embrace these best practices.

8. Recommendations

In the light of the above and to ensure that teachers are differently prepared to play their roles in the 21st century, the researcher recommends the following:

1. That appropriate authorities developing policies on teacher education and those supervising teacher

preparatory programmes in tertiary institutions and other agencies should review such programmes to make room for the development of 21st century literacies and survival skills.

2. That induction programmes for freshly employed teachers into the educational system should be taken more seriously. Deliberately planned induction programmes of specific duration should be put in place. During the induction period, 21st century literacies and survival skills should be re-introduced and or reinforced.
3. Need for participation in developmental programmes in the duration of a teacher's career must be emphasised. Promotions and other remunerations should be based on them.
4. Re- certification of teachers for continuous participation in the educational system after a specific period of about 3-4years, should be given serious considerations where such practice is not already in existence. This will go a long way to convince the teachers that a one off teacher training programme is inadequate for effectiveness and to reinforce the idea of lifelong learning among teachers.

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