Celebrating difference: 
a co-ordinate model of schooling

David Wylde
Rector, St Stithians College, Johannesburg, South Africa

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INTRODUCTION
Madam Vice-Chancellor, Deputy Vice-Chancellors, members of the Academic Community, graduands, parents, ladies and gentlemen.

Congratulations to you who are graduating this evening on behalf of all of us present in this Great Hall, and those who were unable to attend but are with you in spirit. Yours is a great achievement, because you have shown self-control, self-discipline, and self-belief and allied yourself with all who value education greatly; equally admirable is the commitment of those who have supported you financially and with love.

May I add my own congratulations and hopefulness to you? You are all fantastic, maybe a little jaded, bewildered by all the fuss, but for me, and I am sure others, there is only excitement because of your potential contribution to building this great country. You can in the years to come, render this country and its people great service through your leadership in many different spheres. Welcome to the most exciting opportunities in South Africa for you and for all of us.

You can give and receive
Your future value to our country is immense. There is a correlation between the percentage of graduands in a country and its economic success. For example, there are over 120 tertiary institutions in Tokyo City alone. For South Africa, the more graduands the country produces, given that they make a contribution, the more likely our country is to grow and prosper.

It’s a huge honour for me to be asked to address you, so I am going to make the most of it and say one thing only, but go on about it, in the hope that you will influence the future thinking of those who make decisions. This address is aimed not at your future but at those behind you who would make as much of the opportunity as you have, if they could get through the door.

The number of those receiving Matric exemption has fallen from 88 497 in 1994 to 68 626 in 2000 (a drop of 22%), and is cause for concern. The reasons as to why this has occurred are well known: legacies from the past, teacher inefficacy, and poor facilities. There is another blocker, to girls particularly, very seldom put under the spotlight, which I would like to comment on.

FINDINGS
We live in a moment of our history of profound opportunity to address gender equity issues because we are surrounded by findings, and, “the facts are always friendly”. Firstly, the Human Rights Watch published a report in March 2001 entitled “Scared at School: Sexual Violence Against Girls in South Africa.” This report evidenced amongst many conclusions that:

“Sexual violence and harassment in South African schools erect a discriminatory barrier for young woman and girls seeking an education. As a result, the governments failure to protect girl children and respond effectively to violence violates not only their bodily integrity but also their rights to education.”

“Because it often remains unchallenged, much of the behaviour that is violent, harassing, degrading and sexual in nature has become so normalised in many schools that it should be seen as a systematic problem for education, not merely as a series of individual incidents. Proactive and preventative measures such as human rights education programmes within schools, clearly articulated and enforced policies, and better co-ordination between the education and justice systems, are needed to combat sexual violence and create an educational environment that respects the rights of girls. Years of violent enforcement of apartheid-era policies have fuelled a culture of violence.”

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The report talks of the need for a “national plan”, the need to “foster a climate of gender equality”; and that, should “Acts of sexual violence and violence against girls at school remain unchallenged by school officials” they will “exact a terrible cost to educational quality and equality in South Africa - in addition to violating girls’ rights to bodily integrity.”

The report ends with the comments:
“Quality education is predicated on all students being able to participate in education safely and without fear.”

Challenging stuff, and our government’s response to this report has been admirable and swift (as has the work of Childline, the Human Rights Commission, provincial structures and others). The media too, I think you will agree, have run a constructive campaign by raising the profile of this issue.
“The Select Committee Report on Education & Recreation to the National Council of Provinces” (February 2002) found that:

- The Department of Education has no policy on sexual violence in schools;
- There is a lack of effort in investigating by the South African Police (SAP);
- The problem of sexual harassment and violence against girl children is widespread across races and class lines;
- The majority of perpetrators are adult males, known to the survivors;
- Survivors are primarily females between the ages of 12 to 18 years;
- Abuse took place between the learners also;
- There is inadequate action to deal with the perpetrators;
- Many perpetrators continue to teach in the schools of their survivors;
- Most of the perpetrators are educators;
- Most cases of sexual violence against girls go unreported;
- It is apparent that principals, school governing bodies and parents are turning a blind eye to sexual violence;
- There is a lack of awareness about sexual violence amongst learners, resulting in a reluctance to report cases to relevant authorities;
- Traditional beliefs and practices may contribute to the culture of silence around sexual violence;
- The educator’s Code of Conduct is silent on how to deal with sexual violence.

These abuses came about for a number of reasons: forced child prostitution because of poverty; the migrant worker system, which means that parents are far away and children are abused by community members; educator to learner abuse, caused sometimes by liquor and drugs and covered up as “affairs”; learner to learner abuse, sometimes at bashes (parties); and sometimes because of provisioning techniques that will be reached is that the 1990’s has been the decade of brain research, much work has been done, and we now know far more about how the brain functions and develops than any previous generation and differences that can occur in brain development and function between male and female.

Two studies particularly inform the following paragraphs. They are: “Brain Sex” by Anne Moir and David Jessel; and “Boys & Girls Learn Differently” by Michael Gurian. This research indicated that the brain looks different in most males and females, e.g. the “corpus callosum, the bundle of nerves that connects the right and left hemispheres is up to 20 percent larger in females than in males, giving girls better cross-talk between the hemispheres of the brain.” In the cerebral cortex which “contains nerves that promote higher intellectual functions and memory, and interprets sensory impulses”, the right side is thicker in most males and the left side in females.

Maturation progresses at different rates. In most aspects of development chronology, girls’ brains mature earlier than boys. An example, Michael Gurian writes, “is in the myelination of the brain” and explains as follows:

“One of the last steps in the brain’s growth to adulthood occurs as the nerves that spiral around the shaft of other nerves of the brain, like vines around a tree, are coated. This coating is myelin, which allows electrical impulses to travel down a nerve fast and efficiently. Myelination continues in all brains into the early twenties, but in young women it is complete earlier than in young men.”

So, girls can because of maturity differences, acquire their complex verbal skills as much as a year earlier than boys.

There are also differing amounts of brain chemicals in the male and female brains. For example, the male brain secretes less serotonin than the female, making males generally more fidgety. Hormonal differences are well known, but less well documented until recent research, which indicates the significant impact these differences have on male and female behaviour. With the use of position emission tomastrophy (PET) scans and magnetic resonance imaging, the different functioning has been established. Ruben Yaw of the University of Pennsylvania says: “There is more going on in the female brain.” This is presumably not a value judgement. Us men don’t come out well in all this.

Boys and girls process emotion differently. Those same measuring techniques show that “information laden with emotive content” (e.g. siblings experiencing a crisis with parents before leaving for school) “comes into the female limbic system, and moves quickly to the top of the female brain – into those four lobes where thinking occurs. The boys’ brain, seems to have a tendency to move information quickly towards the bottom of the

The fast tracking of the legislative review process on the Sexual Offences Act, the Child Care Act, and the Child Justice Act are also good news.

The Report on Sexual Offences Against Children, entitled “Does the Criminal Justice System Protect Children?” (SA Human Rights Commission, April 2002) includes amongst its recommendations the need:

“To develop a system that is premised on the best interests of the child and thus is child friendly.”

This regulatory framework is certainly going to assist schools to implement punitive action. However, the schools themselves can create a climate where abuse is less likely to occur, and gender equity is imbibed by boys, girls and staff.

The second piece of vital evidence that informs the conclusion that will be reached is that the 1990’s has been the decade of brain research, much work has been done, and we now know far more about how the brain functions and develops than any previous generation and differences that can occur in brain development and function between male and female.
Lecture

limbic system (that is, the amygdala) and the brain stem. In simple terms, this makes a female more likely to process the pain or hurt and get help from others to talk about it, since more of her activity moves up to the hemispheres that verbalise and reason over the crisis; by contrast, the male is likely to become physically aggressive (fight) or withdraw (flight). There are female and male brains that don’t do this. This is a general noted tendency.

Why the brains are different is explained by human and natural history and the production of hormones in utero and at puberty.

We are going to focus on the puberty years, where differences are very noticeable.

Implications

There is no intention to indicate, from these general biological predictors, that girls can’t do maths and boys can’t write poetry, but this data does suggest that strategies need to be put in place in our schools to help all boys to communicate well and all girls to enjoy and succeed at maths and physics, while their brains are developing and growing. Maybe schools need to be restructured around these findings.

Schooling started in medieval times, was Church-based, and monastic in ethos. Girls were only brought into the system in the 17th century and in very isolated examples, but more so by the early 19th century. The late 19th century saw the building of co-ed schools as the most cost-effective method of mass education. Co-education has its own side, so does monastic education, and to debate which is better is a tired, clichéd topic for the junior debating society. It is also not the right question. The question should be not “what is the best system?” it is “what is in the best interests of the children?” The answer is that boys and girls’ best interests are served by a system that is sensitive to their different needs at different stages of their development. Such a system is called the co-ordinate model and there are growing numbers of schools that practice co-ordination in New Zealand, Australia (because of a need to help boys fulfill their potential in creative writing and language), England, Japan and America. There are two examples of co-ordinate schools in South Africa. Co-ordination is the third alternative to schooling in our age of innovation.

A Statement issued on 3 May 2002 by the US Department of Education, Office for Civil Rights, reads:

“The Secretary provides notice that the Secretary intends to propose amendments to the regulations implementing Title IX of the Education Amendments of 1972 to provide more flexibility for educators to establish single-sex classes and schools at the elementary and secondary levels.” (Ref: http://www.ed.gov/ocr/t9-noi-ss.html)

This movement in America away from considering single-sex classes unconstitutional is a significant shift.

The co-ordinate model is and can be where boys and girls are taught in separate classrooms during their early puberty years, Grades 7-10, and in the same school. When they most need to understand their ideal self and their own sexuality they are in an environment where they sense belonging, are safe, and can reflect with those of their own gender; and with confidence. Their informed teachers also understand their different learning styles and rates of maturation.

The model is cost-effective because it does not require further classrooms nor teachers, it requires a change in management structure so that certain classrooms are allocated to the boys and certain to the girls, and that the teachers go through in-service training to understand different learning styles and adopt new methods. Girls and boys in the co-ordinate model socialise to the extent that they would normally in the playground during school. What changes is that boys develop their “tender” side, because they are not in a gender competitive situation: they debate, join the drama society, write poetry and develop their communication skills, which they are in danger of leaving to the girls in a mixed situation, and participate in classrooms where machismo is dismissed as buffoonery rather than heroism or sexual grandstanding. Boys often need to be on their own, in their own space; so do girls.

Girls take maths and science seriously in single gender teaching situations; they take their abilities seriously and don’t play the dependent game. [one of the public/private partnerships that St Stithians College is involved in is a maths teaching project with Letsibogo High School (Soweto), which is one of the 100 Maths and Science schools in the country selected by the Minister, and the only girls’-only school in Soweto. Eighty girls (an increase from the beginning of the year) are taking Higher Grade Maths at Grade 10 and their bright-eyed commitment is an example of the confidence that single gender classrooms can engender.] Single gender can create a real “connectedness” with the school and because they generate a special sense of belonging, the children, according to Maslow’s hierarchy of needs, move to the next level of positive self-esteem. Co-instruction at Grade 11 and 12 then takes place between two confident genders where there is less dependency, a greater spread of genders through all the subjects and because gender issues are confidently discussed and stereotypical attitudes challenged, these schools (to quote Scared at School) “foster a climate of gender equality” and “advance mutual respect between boys and girls”. Teachers, too, are sensitised to the differing gender needs at puberty.

Co-ordinate model schools’ time has come. They are the radical change in structure that a school system, relatively unchanged for 132 years, needs to take. They can reposition attitudes (allowing children to know themselves before they have to know the other gender) and new attitudes move cultures. Cultures create understanding of what is acceptable behaviour in our society. In a time of a national pandemic and widespread sexual abuse, every small and logical change in the way we do things will help us out of this looming disaster. No one strategy will do it; it needs a multi-pronged approach to a complex problem.

Recommendations

The conclusion of this address is that the Minister of Education consider, as he has with the maths and science schools across the country, setting up countrywide, another 100 schools that have gender separate classrooms from Grade 7 to Grade 10 and that he decide on what criteria of measurement he should apply to its efficacy. The “experiment” should run until the Grade 7’s are in Matric and then be reassessed. These schools would act as light-houses in their communities and could beam their findings and probably proliferate their practices to others.

Gender sensitive teaching will help create the 200 000 extra tertiary students (i.e. Matric exemption candidates) that our Minister projects over the next years, particularly girls doing higher grade maths. And, as we have already said, the success of any nation is measured by the number and efficacy of its graduands.

Congratulations on what you have achieved. Know that you are more precious to this country than gold. Enjoy contributing to the success of our nation.