Six years of inclusive education at the University of Rwanda-College of Education: Evaluation and perspectives

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Abstract

Inclusive education is one of the emerging challenges in the Rwandan education today, just like in many other educational systems. The College of Education of the University of Rwanda developed and implemented the inclusive education program since 2008. Thirty students with severe disabilities (SwDs) have enrolled, and only fourteen graduated so far. The present study shows that in order to enhance the learning process, a resource room was established to host an assortment of support materials that were purchased. However, few gaps were also revealed: Firstly, the low level of the awareness of staff which is not trained and informed; secondly, the lack of pre-admission guidance and counseling system, as well as diagnostic facilities. Thirdly, inadequately diverse support materials to enable more categories of disabilities to be supported, inappropriate standards and norms as well as follow-up support mechanisms to help graduates as they join the labor market. Finally, it showed the necessity of having SwDs' associations to enhance advocacy and awareness raising campaigns.

Key words: Disabilities, inclusive education, special educational needs, evaluation, perspectives.

Introduction

Statistics from the World Bank reveal that 12% of the global population consists of persons with disabilities (PwDs) and 186 million of this population comprise of children (Mugenda, 2012). The World Health Organization (WHO) puts the number to 15% of the world's population (World Report on Disability, 2012). Nyirahabiyambere (2012) notes a disability prevalence of 5% in Rwanda, and the National Census (2012) reports 446,453 persons with disabilities aged 5 and above, out of which 221,150 (49.53%) are males and 225,303 (50.47%) are females.

Nevertheless, centers for students with disabilities (SwDs) started only three decades ago, even in developed countries like the USA where 70% of them begun during the period of 1975-85 after enacting a law in relation to education of children (excluding the Hoary pioneer, 1948) with little grounding in any discipline for guidance (Pfeiffer & Schein, 2001). At that time, neither habilitation nor rehabilitation services sufficiently resembled the necessary services to post-secondary SwDs.

According to the Guardian Weekly (30 August 2011), Rwanda's Ministry of Education (MINEDUC) says that 10% of young people have disabilities while the Education for All (EFA) Global Monitoring Report 2010 concludes that the number of disabled children at school is likely to be smaller. Indeed, the report notes that Rwanda's education system is generally considered to be one of the most progressive in Africa in terms of primary school enrolment. Indeed, according to the 2012 Education Statistics Yearbook (MINEDUC, 2013), the ''Net Enrolment Rate'' moved from 94.2% in 2008 to 96.5% in 2012. But the report indicates, at the same time, that few children with special educational needs (SEN) attend local mainstream schools, though most go to special schools and centers in urban areas, too far for most Rwandans and mainly for children with visual or hearing impairments.

Disability and Inclusive Education context

Specifically, a recent national census on PwDs found that, despite improvements in national legislation, people and especially CwDs face great discrimination and stigma in Rwanda (Sundaram, 2011). In that context, MINEDUC recently launched a project known as "Innovation for Education" funded by DFID (the UK Department for International Development that manages the project through Mott MacDonald Ltd-Kigali). The main goal of one of the DFID funded projects is the establishment and the application of a set of national standards and norms in inclusive education (IE). Thus, it was assigned the following tasks: to define, to develop, to harmonize and to test ''standards, tools, roles and norms'' (STRNs) suitable for IE in Rwanda and which will serve as the general framework nationwide in order to avoid cacophony, dissipation and duplication.

The leading organization is Handicap International-Rwanda (HIR), and is also supported by Voluntary Services Overseas (VSO) as consortium member. Local partners in developing Inclusive education standards and norms include Rwanda Education Board (REB), Centre de Formation Agricole de Petit Elevage de Kamonyi (CEFAPEK) and Ubumwe Community Centre. Thus, from 2007 to 2011, such initiatives have reportedly supported almost 4,000 children with disabilities to attend mainstream education in 78 schools (*Guardian Weekly*). Currently, according to its *Quarterly Report over the period of 1st April until 30th June 2013* and the detailed document entitled *Norms and Standards for Special and Inclusive Education in Rwanda,* the aforementioned STRNs were set since June 2013 in a series of important documents: "Norms and standards for inclusive education at policy level", "Norms and standards for inclusive education at service level", "Norms and standards for inclusive education at community level", "Guidelines for moving into force", "Inclusive pedagogical principles checklist", "Promotion, retention and orientation reporting template", "Individual academic and progress record tool", "Inclusive school local accessibility development tool", "Individual education plan ", "Community involvement guide", "Individual special educational assessment/placement tool" and "Profile, design, development and use of a resource room: guide of inclusive model school head-teachers".

However, a Rwandan Sign Language Dictionary was also developed alongside by Rwanda National Union of the Deaf (RNUD) in collaboration with VSO. Therefore, all things being equal, higher education institutions like the College of Education (CE), the former Kigali Institute of Education (KIE) could benefit, *mutatis mutandis*, from those instruments. Note that HIR is looking to opening the way to the next step: with stakeholders, to officially validate the drafted papers of STRNs and to start training national and local activists on their use and testing them at school level. UNICEF-Rwanda (Sundaram, 2011) is also committed to do whatever it can to support that reform process so that all children of Rwanda, no matter what disability they may have, have equal access and special attention to success. Note that the joint efforts of the two institutions enabled to fund 54 "child-friendly" schools countrywide, which also provided "best-practice" models for other schools in their cluster areas. Indeed, a 2009 UNICEF report on the initiative indicates that over 7,500 CwDs are supported. The government was intended to rollout the program to over 400 schools nationwide by 2012, and also adopted it as the basic standard for all Rwanda's primary schools **(**Guardian Weekly, 2011).

Besides, other initiatives and stakeholders in inclusive education have been emerging since 2000. "Action for Inclusive Education Development-Rwanda (AIEDR-Rwanda) is one of them established in 2011, and has indicated its areas of intervention as: identification, special educational needs assessment, rehabilitation and habilitation of youths with disabilities (AIEDR Joint Action 2011-2012).

Defining Inclusive education for Rwanda

In the above framework, inclusive education (IE) can be defined as a process whereby the school systems, strategic plans, and policies adapt and change to include educational services and strategies for a wider range of children and their families. This implicitly implies identify children's specific learning needs and styles, and adapt the learning environment and teaching strategies to ensure high quality learning outcomes for all members of the same class/ school. Everyone is important, unique and valued for his/her contribution to the world. From that point of view, in the ''Introduction to Handicap International's 2012 Policy Paper on Inclusive Education'' ('PP Brief n°8, Inclusive Education, September 2012), the organization defines ''inclusive education'' in a more holistic perspective; that is:

> *''… a process for increasing participation and reducing exclusion, in a way that effectively responds to the diverse needs of all learners… takes into account the individual teaching and learning needs of all marginalized and vulnerable children and young people: street children, girls, children from ethnic minorities, children from economically disadvantaged families, children from nomadic/refugee/displaced families, children with HIV/AIDS and children with disabilities'' (HI, 2012).*

This is reinforced by Handicap International-United Kingdom for which ''inclusion'' is ''an approach to education which values diversity as an essential part of the teaching and learning process, and one which promotes human development''. Thus, it aims ''to combat the marginalization of individuals and promote difference''. In schools, ''inclusion'' means that ''the whole school considers what measures it must take for the school to be accessible to all children (including children with disabilities)'', which means that ''the school evaluates its existing capacities and from the outcome creates an inclusive improvement plan''. This will include the planning of resources (infrastructure, human and material) to ensure that all pupils' learning support needs are met. This occurs in collaboration with local education authorities, families, "disabled" and "non-disabled" children and communities.

On the question of the disadvantaged children in Rwandan education, Karangwa, Ghesquière & Devlieger (2007) presented the following: 1% - 5% of disabled, about 4,500 minors in prisons (between 14 and 18 years), about 108 children living with mothers in prison, about 7,000 street children, children affected by armed conflicts, over 170,000 working children (under 15 years), linguistic minority groups and sexually abused girls.

Along with the "emerging transformations and developments" within both special and regular schools (Guardian Weekly, 2011), CE was called upon in March 2013 to start a department of SNE, through which teachers in Rwanda would gain some training in IE and be able to meet the diverse needs of Rwandan CwDs. The ultimate goal was to give a contribution to overcome complex challenges for the general public of SwDs: lack

of awareness among families that CwDs can attend school, poverty (poor families who end up subjecting the children to domestic cores instead of supporting their schooling as an alternative contribution to the family income), effects of the genocide of 1994 Karangwa et al, (2007), including massacre of thousands of teachers that has reduced their numbers (the pupil-teacher ratio in Rwanda is as high as 60:1 according to HIR), burden placed on resources by curriculum shift from French to English as the official language of instruction and stigma that society attaches to PwDs.

Another crucial issue is services to SwDs, an area where we find so many variations on which Pfeiffer & Schein (2001) provides some insights from a survey on services to SwDs in public colleges and universities in the United States, particularly in Massachusetts. Indeed, respondents from the latter identified, in almost every case, the lack of funds as the major challenge. Other challenges were faculty and staff attitudes, lack of support from the rest of the institution, lack of awareness by "disabled" students of their abilities, lack of social adjustment skills on the part of "disabled" students, lack of equipment, inaccessible buildings, lack of paid and volunteer assistance, lack of time, and an open admission which produces high risk students. They also recommended a number of diverse strategies for meeting these challenges: more funds, more trained staff, a newsletter, social events, workshops directed at the major problems, more faculty, staff, and student involvement with the center, cooperation from sponsoring agencies, better transportation, mandatory assessment and placement of in-coming students, more advocacy, and disability studies courses.

Nevertheless, the overview at national level talked of a range of services but not limited to: sign language interpreters for the classroom, note-takers, modified examination administration, advocacy with faculty and staff, personal care assistants and adapted transportation, books on tape, large print materials, curriculum modification advice, information and referral services, and pre-admission advising, in-coming basic skills assessment, post-assessment advising, self-paced curriculum, adjustment and career counseling workshops, tutors, training for faculty and staff, lab for math, reading and writing, tours of campus for orientation, and job placement.

Specifically, adaptive technology is necessary for the academic success of SwDs. This includes a Telecommunication Device for Deaf (TDD, for typewriting and sending text over the phone) and assistive listening devices, adapted computer with speech output, adapted computer with Braille output, adapted computer with large screen output, adapted computer with software modifications, Kurzwell reading machine, closed circuit television, cassette recorder and large print materials. Note that Victoria University uses also Dragon Naturally Speaking for speech recognition and Job Access Windows and Speech (screen reader), and even a portable software on a USB to support reading, writing and study planning.

The problems associated with adaptive technology include inadequacy of funding, staff, knowledge and time, space, and related equipments. On the issue of accessibility for example, the present study notes with interest that only 25% of the Massachusetts University campuses and 37% of the national campuses were reported to be fully accessible despite the adequate means available to them. In particular, sensory disabled

needed flashing alarms in the dormitories, a TDD and related assistive technologies, such as tape recording means of lessons, provisions and adaptation of elevators, tactile maps, automatic door handles and structural changes in bathrooms and other infrastructural systems.

In a recent communication on "Increasing access for persons with disabilities: the case of Kenyatta University", Mugenda (2012) notes that the institution has just started to coordinate issues related to PwDs in 2010 (just two years after CE) but it has reached an encouraging level in terms of services, which include the following: disability services office (monitoring the progress and standards of services to PwDs), labeling of all major pathways linking up buildings to ease the access to deaf students, a post-modern library with a number of facilities which are customized for use by PwDs, widened toilets, computers for use by PwDs in the new library, financial aid, guidance on how to obtain from Higher Education Loans Board (HELB), sensitization and attitude changes (during the orientation sessions, sensitization of first years students on the need to maintain non-discriminatory environment and offer assistance to PwDs where need arise, annual disability Day which creates awareness about PwDs and highlights of activities of PwDs through a newsletter), support to staff with disability as they seek PAYE Tax Relief by contacting Kenya Revenue Authority, a disability act.

The Kansas University Leuven (KU Leuven) for example, considers that the disability office should support PWDs in different steps: information about the range of available support and provisions to assist PwDs both on the level of students' lives, on curricular and non-curricular levels, introduction to the faculty (lecturer, ombudsperson, etc.); co-ordination of facilities or reasonable adjustments (e.g. note-taking, examination arrangements, educational materials, assistive technology, etc.), and empowerment and personal support to students with disabilities. To ensure adequate access to support services, KU Leuven PwDs assesses the SWDs' Special Educational Needs and provide confidential attestation, from which the students' support is identified and guaranteed by the disability office.

Conceptualization of disability and Inclusion

In their foreword to Learning disabilities, McCarthy & McCarthy (1972) note that, because of the variety of disabilities found under the umbrella of "learning disabilities" (a substitute for the former "brain injury") a plethora of books or articles have appeared, each describing small segments of the broader problem, or view the difficulties from the narrow perspective of a particular theory or a particular practice. Thus, some of the divergent literature under the label "learning disabilities" reminds us of the descriptions of an elephant given by blind men. One felt the leg and described the elephant as a trunk of a tree. Another felt the side and described the elephant as a side of a barn, while the third, feeling the tail, described the elephant as a rope.

In 2009, WHO defined a person with disability as someone "who experiences any limitation in performing a daily-life activity in a manner considered normal for a person of his or her age, because of a long-term physical condition (that is, more than six months), mental condition" or "health problems" (Ovadiya & Zampaglione, 2009). Therefore, disability is any restriction or lack (resulting from any impairment) of ability to perform an activity in the manner or within the range considered normal for a human being. Thus, SwDs are

individuals who are disadvantaged by reason of any verifiable and persistent physical, learning, cognitive, sensory, physiological, neurological, or temporary impairment that may affect their academic progress. Often SwDs suffer from lack of motivation and require much more time to accomplish the task (Kajumbula, 2011). The University of London considers as disabilities the following but by no means restricted to: specific learning difficulties (e.g. dyslexia, dyspraxia), visual impairment, deaf/hard of hearing, mobility difficulties (e.g back condition, wheelchair user), health conditions (e.g. cancer, myalgic encephalomyelitis, arthritis, epilepsy), mental health needs (e.g. depression, anxiety, bi-polar disorder), autistic spectrum disorders (e.g. Asperger's syndrome).

The Kansas University Leuven defines disability from a social model perspective as a "handicap situation", meaning a reduced accomplishment of life habits as a result of complex interactions between personal factors (personal characteristics such as impairments) and environmental factors.

But, given the ''complex, dynamic, multidimensional and contested'' nature of that concept, a ''bio-psycho-social model'' was adopted in accordance with the ''International Classification of Functioning, Disability and Health'' (commonly known as ICF), as a workable compromise between medical and social models (WHO, 2012). From that perspective, disability is ''the umbrella term for impairments, activity limitations and participation restrictions, referring to the negative aspects of the interaction between an individual (with health condition) and that individual's contextual factors (environmental and personal factors)''. In that context, impairments are ''problems in body function or alterations in body structure'' (e.g paralysis, blindness) while activity limitations refer to ''difficulties in executing activities'' (e.g walking, eating) and participation restrictions evoke ''problems with involvement in any area'' of life like discrimination in employment or transportation. Thus, the ICF emphasizes environmental factors in creating disability, which is the main difference between this new classification and the previous ''International Classification of Impairments, Disabilities and Handicaps'' (ICIDH).

According to the *Census of People with Disabilities in Rwanda* (Ministry of Local Government, 2010), "a disabled person is any individual who was born without congenital abilities like others or one who was deprived of such abilities due to disease, accident, conflict or any other reasons which may cause disability". The document refers to the Ministerial Order N°20/18 of 27/7/2009 determining the modalities of classifying PwDs into basic categories based on the degree of disability, which are physically disabled persons, sight-impaired persons, deaf-and-dumb persons or persons with either of these disabilities, mentally disabled persons and PwDs not specified in the above categories approved by the medical committee.

The results of the census conducted by National Institute of Statistics of Rwanda in 2009 on the *National Population Projection 2007-2022* revealed a total of 522,856 PwDs (263,928 females or 50.48% and 258,928 males or 49.52%), representing 5.02% of the Rwandan population. It revealed also that the big proportion are physically disabled persons (44%) followed in order by mentally disabled persons (17.6%), other PwDs not specified in the above categories (16.1%), sight-impaired persons (12.8) and last, deaf and dumb persons (9.5%).

Research design

Aims

Since 2008, CE (former KIE) admitted SwDs in different study areas of specializations. Some have graduated and a group is participating in school and community internship for a whole year. Therefore, the present study investigates the action taken by CE and schools of attachments, to get to know achievements, challenges and perspectives. This will help the institution to make necessary adjustments before what was a small department of IE becomes a school in the new framework of public higher education, i.e one university system which was launched in September 2013.

In this regard, the current research is intended to evaluate IE program introduced at CE and to draw perspectives in order to better guarantee SWDs equal opportunities to achieve their educational, personal and vocational goals. Thus, the evaluation shall be seen in the context of investigating the effects or effectiveness of a service, an intervention program, a strategy or an innovation. It can be seen also in the context of changing policy, practice, ideology or theory and the scope can be national, regional, local, or specific to an individual (Porter and Lacey, 2005). Theoretically, such evaluation research may aim to know, thereby demonstrating the potential breadth of the field, (a) if the clients' needs are being met, (b) how the program/service can be improved, (c) how the program/service is operating, (d) how the program/service is efficient and (e) why the program/service is not working (Newbury, 2002, quoted by Porter and Lacey). Therefore, one of the most notable characteristics of evaluation research is that it is carried out within the context of its purpose – it is, by its very nature, designed to be used. The research will handle questions a), b) and d), knowing that the other two have been investigated by other researchers, mainly Munyentwali (2009), Rurangwa (2011) and Abatabizi & Ndabamenye (2011). Indeed, this study is meant for a range of education policy and decision-makers.

Research questions

This research was guided by the following research questions: (i) what is the level of lecturers' and/or SwDs' understanding of the teaching/learning process and methodologies implied in inclusive education system? (ii) what are the services and supportive materials provided to SwDs and what is their adequacy vis a vis the standards?; (iii) do all stakeholders (CE management, staff, non-disabled students, ministry, etc..) play their role in making easier the teaching/learning process for SwDs? (iv) do SwDs still face any form of discrimination and stigma?

Sampling and study population

As the number of SwDs for the whole period (2008-2013) was too small (only 30 students), there was no need of sampling. Therefore, the population study was composed of all the SwDs. The latter were in three categories: those who were on the campus, those who were on internship and the graduates who were on the labor market.

Research instruments and methodology of data collection

Five sources of data were used in this study. First of all, the study gave the floor to the main actors themselves, i.e. SwDs who were studying, such that they can express freely, through an anonymous questionnaire, their views on what was done for them. All returned the survey. The second source was graduates' action research projects and interviews. The third was statistics collected from the Registry.

Thereafter, all academic leaders or officials were approached and given the opportunity to reflect on the queries of beneficiaries (students), again through an anonymous questionnaire. These are the Officer in charge of Academics (former Vice Rector Academic), the Dean of the Faculty of Education and the initiator (and also coordinator) of the programme. Finally, the study referred to experiences from other institutions worldwide, as indicated in the subsequent sections.

Data analysis

The collected data were analyzed by using both the qualitative approach (reflection, conceptualization, coding, categorization, interpretation and corroboration/legitimization, etc.) and the quantitative approach (statistics, distribution and/or ranking of the variables studied, etc.).

Findings and discussion

Enrollment/admissions

According to statistics from the Academic Affairs Directorate (2013), CE admitted a number of SwDs each academic year (knowing that the year 2012 enrolled two intakes, as reflected below), both males and females, distributed as follows: 4-4 (50%-50%) in 2008, 4-0 (100%-0%) in 2009, 3-1 (75%-25%) in 2010, 3-1 (75%-25%) in 2011, 4-0 (100%-0%) in 2012 and 5-1 (83.4%-16.6%) in 2012-2013, with an overall of 23-7 (76.7%-23.3%). Thus, the first immediate concern is the enrolment (number of admissions) which is still too low (year average: 5). Moreover, the total number for the whole period (30) is a drop in an ocean compared to the total number of SwDs who finish secondary school each year. According to *Rwanda Education Statistics* (MINEDUC, 2012), for a total of 39,257 students who completed S6 in 2011, SwDs were only 378 (216 boys and 162 girls) which represents just 0,96%, knowing that the loss rate became higher and higher from S2 (2,605 students in S1, but 1,789 in S2, 1,162 in S3, 639 in S4, 580 in S5 and 378 in S6). Besides that, CE admitted only 6 SwDs, which represents only 1.5%.

The second concern is that there is a gender imbalance. Indeed, there is need to reflect on the underlying reasons and on how to increase the number of girls. While the first intake had 50% of males and 50% of females, the number of females decreased up to zero (during two of the six academic years considered, no female was admitted) and more than three quarters of the total number are males. Thus, the question was to know if these figures reflect the reality on the ground. But there is a mismatch between figures of previous paragraph (57.1% of the year 2011 secondary schools finalists were males while 42.9% were females) and those related to admissions at CE for the six years (76,3% are males and only 23,7% are females).

The third one is that the total number per year has decreased to the half for the second, the third and fourth academic year before it started a slight increase without reaching the initial number. It was also noted that, so far, CE admitted only two types of disabilities: visual impaired and physically impaired but it should prepare itself to a more complex situation with other types of disabilities, so as it can hosts all cases from pilot secondary schools under Innovation in Education project which take already care of intellectual impairment, physical impairment, visual impairment, learning impairment, hearing impairment, multiple impairments and others (albinos, epileptic). For instance, the University of West London (2012) takes care of a wide range of disabilities, including but by no means restricted to: specific learning difficulties such as dyslexia or dyspraxia, mental health difficulties (such as depression, bipolar disorder and schizophrenia), chronic fatigue syndrome, long term medical conditions (such as heart conditions, AIDS and cancer), unseen disabilities (such as diabetes, asthma, epilepsy, brain injuries), autistic spectrum disorders, hearing impairments, speech impairments, mobility and physical impairments. At CE, SwDs were distributed into combinations as shown in the following table:

SN	Combination	Distribution			
		Male		Female	
		Number	%	Number	%
1	English + Education (Eng. + Ed.)	3	100	0	0
2	Social Studies + Education (Soc. Studies. + Ed.)	3	100	0	0
3	Foundations of Education (Found. of Ed.)	3	60	2	40
4	Kinyarwanda-English-Education (KEE)	4	80	1	20
5	French-English-Education (FEE)	1	100	0	0
6	History-Geography-Education (HGE)	2	100	0	0
7	Education-History (Ed.-Hist.)	3	60	2	40
8	Education-English (Ed.-Eng.)	1	50	1	50
9	Swahili-English-Education (SEE)	2	100	0	0
10	Business-Religious Studies-Education (BRE)	1	100	0	0
11	Office Administration & Management (OAM)	1	100	0	0

The table shows that, on one hand, no SwD was registered in science subjects; on the other hand, females were registered in only four combinations out of eleven. Why this situation when we know that all SwDs are government-sponsored? Is the issue of females related to the general perception of girls' schooling based on the tradition?

Though those questions need a deeper investigation, Karangwa et al. (2013) recently carried out an informative study with the following title: ''Plights of Learners with Visual Impairments in Rwandan science classes: Evidencing teachers' practice in HVP Gatagara''. Given the visually impaired learners' observable tendency to strictly opt for professional studies related to language and arts such as journalism, law, psychology and others, but never any science studies, the authors exclusively paid attention to the education of that category of students, with particular attention to their attainment in science-related subjects.

The findings revealed that they encounter a series of constraints or limitations, among others: (i) incapacity to use visual aids and subsequent difficulty to comprehend concepts which become abstract or are deprived of their concrete meanings, (ii) tactile methods becoming useless when it comes to graphic

representation of mathematical and scientific concepts, practical experiments, colors, symbols, graphs, and drawings, (iii) HVP Gatagara receives regularly, surprisingly, school books from REB meant for sighted learners despite the constant reminder by its administration that they are of no use to their non-sighted learners, and their demands for tactile alternatives are reportedly ignored, (iv) the school is not guided by the national curriculum because there is none meant exclusively for learners with special educational needs, (v) teachers' limited skills in handling special educational needs associated with visually impaired learners, as well as their inadequacy in handling alternative teaching resources.

Finally, CE should think about improvement in relation with admission process and specifically pre-admission advising. For that purpose, that process should not be shrouded in mystery. Indeed, it was reported that the registrar's office possesses no information on types of disabilities before students arrive at campus, which could hinder the planning for support.

Achievements

The analysis of respondents' views and data gathered from faculties sheds some light on the program's achievements.

- The first general observation is that the beneficiaries (students) of the IE program at CE recognize that a lot was done so far and they are grateful for that.
- The second one is that their performance (or academic achievements) is encouraging or rather overwhelming.

Indeed, the study was interested in knowing if those disabilities were a hindrance for students' achievements. Rather, as per their results, they demonstrated sufficiently that the motto "disability is not inability" are not idle words. Indeed, despite all limitations or obstacles they meet in the teaching and learning process, it is noted that only one repeated a year and only one changed his/her combination after first year. Besides, marks of all those who graduated indicate clearly that their performance was constantly and gradually improving. Indeed, it was observed that there is a very significant progression between level 1 and level 5 which varies between 18.49% and 63.16%. Besides, 14.28% of them got an upper second grade and 21.42% scored more than the class average of the cumulative general average.

The study investigated also the perception of the support those SwDs are given. For that purpose, each student was requested to state the three things he/she liked most since he/she is at CE. On the positive side, the highest ranking went to assistance from resource room staff and the second to provision of soft copy of notes from lecturers and the third to the concern of lecturers about IE. But they equally complained about the bad quality of meals (though being a general issue), the delay of bursary, the lack of Braille books or modules and lack of communication.

It was also important to know whether SwDs have ever been victims of discrimination and/or stigmatization attitudes. Out of 12 respondents, eleven (91.6%) never encountered such problems. Only one (8.4%) abstained from responding. The study investigated specifically the issue of support from lecturers during

the teaching-learning process. Out of the 12 respondents, one (8.4%) strongly agreed, four (33.3%) agreed, four (33.3%) disagreed and three (25%) strongly disagreed.

On expectations from lecturers, they talked, with the same frequency of timely notes and support, awareness about their problems, inclusion and cooperation in group works and assistance in problem solving. On expectations from CE as an institution, these are the main issues they raised (in order): trainings for lecturers and increament of assistive materials (Victor readers, recorders, memory cards…), incentives for resource room staff for extra hours, trainings for that staff and trainings for SwDs themselves.

An appeal was also made to MINEDUC. The main wishes were (in order): trainings for the resource room staff in using new technologies, trainings for SwDs (especially in Braille, grade II), increasing of educational materials, incentives for resource room staff (extra-work), accessibility to buildings, training for lecturers and assistance (after completion) for job search.

On the community side, respondents appealed for change of behavior (some people still discriminate and exclude PwDs), trainings for all on inclusive educationists (mainly educators in secondary and primary schools), equal opportunities for all children (non "disabled" and "disabled"), education for all and love, charity, collaboration and encouragement.

In general, it is clear that adjustments are needed: awareness and trainings of lecturers, trainings for the resource room staff on the use of new technologies, purchasing of more technical materials or facilities (specifically for science subjects, refer to Karangwa et al., 2013), trainings for SwDs themselves (Braille/grade II…), Braille textbooks for equal opportunities in terms of documentation and research, more accessibility to buildings and offices and improvement of communication system within the College.

About the examination administration process, Victoria University (2013) provides inspiring alternative arrangements to enhance SwDs' performance in their assessments through special seating arrangements, extra time for exams, extensions for assignments, adjusted or alternative assessments tasks where necessary and use of Auslan interpreters or scribes in tests/exams. It was noted that CE observes the first two principles through the resource room and the officer in-charge makes the necessary consultations with the concerned lecturers when it comes to the last three. But it could also borrow some other best-practices from the University of Sydney (2012): bite size food/drink, permission to use a glucometer or take medication, amanuenses/scribes, coloured exam paper, sloping desk surface and other ergonomic furniture, special lighting and other room requirements, etc., depending on the enrolled categories.

During this evaluation study, as stated above, also all levels of academic leadership were approached. According to them, the main achievements are the following: having initiated the programme and having already admitted six cohorts with a total of 14 graduates, good performance which allowed some of them to be recruited as teachers in secondary schools, having and equipping the resource room and accessing computers besides the normal Braille.

But those leaders also identified a series of challenges: lack of awareness of IE, negative attitudes of some general students and staff population, insufficient teaching/learning materials and equipments, insufficient

trainings to use adequately those equipments both by students and lecturers, capacity of the resource room still limited by shortage of personnel, equipments and space (not all the adapted educational and assistive provisions are in place), need for more programs to accommodate other SwDs (not all severe functional difficulties/disabilities are catered for), need for a national strategic plan to cater for those groups, negative impact on inclusion of students with severe functional disabilities by constant transformations in Rwandan education and lack of diagnosis facilities (a process of great importance according to Lerner, 1971).

Therefore, they are of the view that CE should train both academic and administrative staff on SEN in order to raise their awareness and to enhance the use of materials and equipments, train the resource room staff in the manipulation (and even the repair) of all available assistive materials and SwDs in the manipulation of those materials, extend the resource room and acquire new equipments, improve the accessibility to premises (specifically for wheel-chair students), ensure that SEN learners have access to the same teaching/learning content and materials as do other students (particular attention should be paid to students with communication challenges) and ensure that the increase of SEN learners is matched by a similar increase in resources.

It was also important to see how far CE went in terms of supportive materials. On this issue, an inventory was made. The latter showed a significant progress in terms of equipments purchased: ten Perkins Braillers, seven Braillino (note taking), five Victor Reader Stream (player and recorder for note taking), five simple sound level meters, one portable magnifier, one monomouse (magnifier for reading of texts and images), one Noah software (integrated hearing system), one SV Senseview (reading magnifier), one Zychem machine (producing of tactile diagrams), one video autoscope, one large print dictionary, one DVD player for speech and pediatric audiometer, one middle ear analyzer interacoustics A235h (for diagnostic and screening evaluations using auditory localization techniques), one PAD5 pediatric screening audiometer (vision screening system), one Siemens hearing screener and other gadgets.

Nevertheless, those figures only show that CE has still a long way to go in that area vis-a-vis the number of SwDs and the international standards. Specifically, there is need to avail or to increase the number of Braillers, synchronized magnification and screen reading systems, voice synthesizers like JAWS, note-taking tools, devices to open files and hear them aloud, video text enlarger and video closed-captioners, speech amplifiers, etc.

Of course, a rough comparison with another institution in the East-African Region, that is Kenyatta University, shows that the situation is not so alarming even if the latter is a bit advanced with very useful tools, some of which CE visually impaired students requested in the survey; i.e. talking books, Braille books, encyclopedias and special tables in lecture halls, though the overall adequacy rate of the available resources/facilities is still low, i.e 34.6% (Kimani, N.G., 2012).

It is also important to decide on the type of resource room which is needed. Indeed, according to Bender (2008), there is a large range: categorical resource rooms (for particular learning disability cases only), cross-categorical resources (for several disabilities), non categorical resource room (for all SwDs where categorical distinctions cannot be recognized), specific skills resource rooms (aiming their curricular content at

one basic skill area) and itinerant resource programs (student visits to the resource room are not scheduled on a daily basis).

On its part, MINEDUC was requested to concretize the establishment of a school of IE under CE in order to empower the area/domain at national/regional level (currently, a taskforce is already in place), train teachers of all levels in IE, adapt curriculum and assessment/examination for SwDs, make advocacy for non discrimination of graduated SwDs in recruitment and the availing of specific assistive materials in offices, specifically for sight-impaired people who miss jobs because of that. It should also ensure that the national policy on adaptation and accessibility of infrastructure and transport for PwDs countrywide is fully implemented with regard to SwDs. Finally, it should avail rehabilitation services to SEN students as part of education services and sensitize parents about the importance of IE.

During the research, it was specifically important to investigate the situation of the 13 visually impaired graduates who are on the labor market. For that purpose, an interview was conducted. On one hand, it is fortunate that three of them (23.07%) got a job. Though he did Social Sciences (Business Studies as major), the first one is teaching computer science in a special school for blind students after having got a Kenyan certificate. Currently, he is also the school ICT manager and voluntary computer lab attendant for the surrounding community. The second one is a mentor for the national English bridging/uplifting programme. The third one is teaching English to sighted students. Besides, the perception vis-à-vis impaired people is progressively improving. Note that all of them are well integrated and are appreciated by the entire school community (including the management) because they are performing very well their duties (though with difficulties due mainly to lack of computers and accessories), which they consider as a feat after that obstacle course. At this moment, the fourth one has got a firm promise. On the other hand, it is regrettable that, for the two others (15.38%), applications were, in most cases, rejected at the last minute, after positive promises, due to headmasters/mistresses' ignorance and incredulity or local leaders' interferences or behests.

In this regard, the concerned appealed to all education leaders for a necessary follow-up and advocacy, specifically for the acquisition of supportive materials at the labor market. Indeed, they feel they are left to their own devices. Besides that, it is important to note that, for advocacy purposes, there is a great need to establish an association on higher education and disabilities on existing models, like the American "Association on Higher Education and Disabilities" (AHEAD) whose role is to promote full access to and participation in further and higher education for SwDs and to enhance their employment prospects on graduation (Pfeiffer & Schein, 2001), Kenyatta University Students with Disabilities Alumni Association, Makerere University Disabled Students Association, etc.

Conclusion

This research brought to light a lot of achievements of the inclusive education program at CE that include: thirty students enrolled so far (and fourteen graduated); establishment and equipping the resource room; some regulatory mechanisms aimed at improving the learning and teaching environment for SwDs was acknowledged by the beneficiaries. Nevertheless, the study clearly indicated the necessity to set mechanisms for pre-admission

guidance and counseling; raising the number of SwDs and reducing gender imbalance; the need for raising awareness and training academic staff on IE; purchasing more and varied supportive materials which could enable CE to take care of more types of disabilities and training the resource room staff and SwDs themselves in their use; equipping the resource room with more diagnosis facilities and improving the accessibility of infrastructure; making the most of STRNs developed by HIR and its stakeholders; putting in place tracing mechanisms to maintain links with graduates facing all kinds of labor market challenges (specifically supportive materials) and assisting in the establishment of a SwDs' association for advocacy purposes in relation with their employment prospects.

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