

The structure and characteristics of interactive capabilities differ across academic disciplines and research fields. In astronomy, interactive capabilities are largely vested within individual academics and at the departmental level. In engineering, faculty structures are critical, and provide examples of good practice in terms of responsiveness to the requirements of the workplace, including close relationships to the engineering professional body, and the encouragement of direct interaction with employers. For example, the provision of one day per week for engineering academics to work externally has made it possible for academics at a leading research university to consult for firms in the SKA's innovation network and supply chain. This has also allowed them to form their own start ups, often in partnership with postgraduate students or postdoctoral fellows, to participate in these networks and contribute to the SKA's technology development efforts.

Interactive capabilities form a lever for access to the global science and technology frontier.

Engaging colleges for better quality graduates

Universities are not the only actors in the skills development landscape. Over the course of several years, the SKA has sought to engage with Further Education and Training (FET) colleges, but due to limited basic competences at the colleges there have been few graduates produced from this engagement. Colleges have limited capacities to internalise planning and specific skills requirements. This is a reflection of South Africa's FET system, which has been challenged by multiple policy changes, low levels of independence, and weak overall capabilities. However, the SKA has continued to engage with colleges in order to build internal competences and capabilities, and this is leading to a gradual improvement in the quantity and quality of graduates.

The rich and complex system of interactions that coordinates alignment between skills demand and skills supply for the SKA has connected and leveraged existing competences, and orientated them towards the production of skills needed by the SKA. The case of the SKA reveals how, in highly unequal developing countries such as South Africa, interactive capabilities form a lever for access to the global science and technology frontier. For policy makers, this highlights the potential of other knowledge-intensive sectors that are situated in a fragmented and unequal knowledge economy, but are characterised by pockets of excellence and the promise of attaining critical mass and international competitiveness. ■

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TEACHERS' VIEWS ON SEXUALITY EDUCATION FOR CHILDREN WITH DISABILITIES

Do we need to teach sexuality education to children with disabilities, and who should be responsible for teaching programmes related to HIV/AIDS to these learners? *Julia Louw* raises these important questions in investigating how teachers and childcare providers feel about teaching sexuality and HIV/AIDS programmes to their learners with disabilities.

The aim of the study was to examine teachers' and childcare providers' views and perceptions of teaching sexuality and HIV/AIDS programmes to learners with disabilities in special needs schools (SNS).

Providing children and young people with sexuality education is imperative. However, providing sexuality education to children and young people with disability has turned out to be a priority of low importance. This is mainly due to the misconception that people with disabilities are not sexually active or are asexual.

Behavioural risk factors for HIV among people with disabilities are the same as those for the general population.



Limited access to such information places this highly vulnerable and marginalised group at an increased risk of HIV infection, as behavioural risk factors for HIV associated with sexual activity among people with disabilities are the same as those for the general population.

Methods

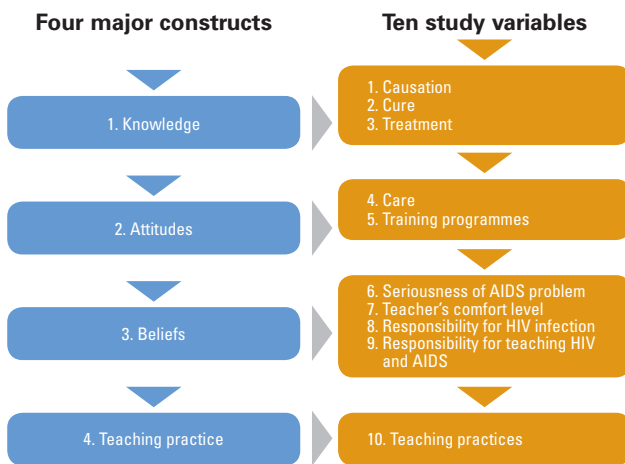
Teachers have a vital role in formal programmes of sexuality education and at times, they are often the main or the only people explicitly discussing sexuality with children



and young people with disabilities. For this reason the study involved 78 special education teachers and childcare providers (68 teachers and 10 childcare providers) in the Western Cape, who completed a survey questionnaire consisting of the following five sections:

- Demographic characteristics
- Knowledge of HIV/AIDS
- Attitudes towards HIV/AIDS
- Beliefs about HIV/AIDS
- Teaching practices of HIV/AIDS programmes

Figure 1: Four major study concepts and 10 study variables



Source: J Louw

Results

The majority of the participants were females (84.6%, n=66), with an average age of 45.6 years and an average of 13.1 years' teaching experience. All participants indicated that they had received a form of training related to teaching sexuality education to learners with disabilities, with the majority of the sample (69.3%, n=54) having had general training.

The findings indicated a strong association between the participants' knowledge of HIV/AIDS and prevention of HIV infection. Teachers also reported high mean scores for levels of comfort – their willingness and open-mindedness to teach sexuality education to learners with disabilities.

Standard training materials were primarily designed with mainstream schools in mind.



Discussion

Although the majority of the current sample reported receiving general training on sexuality education, the data showed that their beliefs about teaching programmes pertaining to HIV/AIDS were moderately low. This may indicate that the curriculum needs to be updated with relevant topics focusing specifically on education strategies on how to deal with the unique needs of learners with disabilities.

The findings suggested that the standard training materials that were primarily designed with mainstream schools in mind, should be modified and adapted to suit the needs of children with disabilities.

In addition, there is a need for training that includes and offers insights to the influence and impact of teachers' own perceptions and beliefs regarding sexuality. The boundary between choosing and adapting appropriate materials for the class and imposing one's own values when modifying material is vague and indistinguishable. Therefore there is a likelihood that teachers may impose their own personal values when transferring messages to their learners. This awareness should be continuously highlighted as teachers develop the best teaching strategies and approaches to teaching sexuality education to children and young people with disabilities.

Conclusion

Teachers report a willingness to teach sexuality education to learners with disabilities but they may not necessarily believe that teaching programmes are of sufficient quality. Various opportunities arise to address the training paradigms and quality of programmes given teachers' vital role in formal programmes of sexuality education. ■

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